MIRROR OF DENTISTRY

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J. Hilleyn, Lith. Hull

THE

MIRROR OF DENTISTRY,

A REVIEW OF THE

Present State of the Dental Profession,

WITH FULL INFORMATION AS TO

THE VARIOUS OPERATIONS IN DENTISTRY; THE USE AND ABUSE OF ARTIFICIAL TEETH; THEIR GREAT IMPORTANCE FOR THE PRESERVATION OF HEALTH; OBSERVATIONS ON THE DISEASES OF THE TEETH AND GUMS; AN ANALYSIS OF THE MERITS OF THE VARIOUS INSTRUMENTS USED IN DENTAL OPERATIONS; AND AN EXPOSITION OF THE VARIOUS IMPOSITIONS PRACTISED IN DENTISTRY.

THE WHOLE BEING

ILLUSTRATED BY TWENTY-TWO ENGRAVINGS.

BY J. W. DAVENPORT,

SURGEON-DENTIST, HULL;

INVENTOR OF THE IMPROVED FORCEPS FOR THE EXTRACTION OF TEETH.

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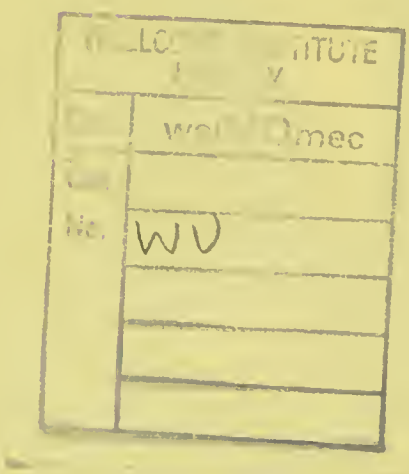
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TO

THE MEMBERS OF THE MEDICAL PROFESSION

OF GREAT BRITAIN,

This Treatise

IS MOST RESPECTFULLY DEDICATED,

BY THEIR OBLIGED

AND MOST OBEDIENT SERVANT,

THE AUTHOR.

PREFACE.

THE Author's object in writing the following pages has been to lay before the inquiring public an outline of the present state of Dentistry—a plain statement of facts, unbiassed by any contemporaneous opinions; and to check, as far as possible, the most shameless quackery and imposture, by the diffusion of information, in a popular form, long wanted, among all persons interested in an Art so indispensable to health and good society.

The explanations given have been purposely rendered familiar to enable the reader to form his own judgment on the merits or demerits of the Surgical

and Mechanical Operations, and as a guide to the non-professionals, in order that they may distinguish between the truly honest and scientific man, and the enterprizing quack who is destitute alike of competency and principle.

46, George-Street,
Hull.

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THE

MIRROR OF DENTISTRY.

PART I.

MECHANISM OF THE MOUTH.—INFLUENCE OF THE TEETH ON BODILY HEALTH.

WELL might Paley remark—

"In no apparatus put together by art, do I know such multifarious uses so aptly contrived, as in the natural organization of the mouth, and its appendages. In this small cavity we have teeth of a different shape; first, for cutting; secondly, for grinding; muscles, naturally disposed for carrying on the compound motions of the lower jaw, by which the mill is worked; fountains of saliva springing up in different parts of the cavity for the moistening of food, during the time of mastication; glands, to feed the fountains; a muscular contrivance in the back part of the cavity for the grinding of the prepared aliment into its passage. In the meantime, and in the same place, is going on business wholly different—that of respiration and of speech; and in addition to all that has been mentioned, we have a passage opened from this cavity of the mouth into the lungs for the admission of air, exclusively of every other substance. We have muscles, some in the larynx, and without number in the tongue, for the purpose of modulating that air in its passage, with a variety of compass and precision, of which no other musical instrument is capable; and, lastly, we have a specific contrivance for dividing the pneumatic part from the mechanical; for preventing one set of functions from interfering with the other. The mouth, with all these intentions to serve, is a single cavity in one machine, with its parts neither crowded nor confined, and each un-embarrassed by the rest."

With these simple facts before us, we must confess that the human body may be regarded as a machine, not less remarkable for the finished workmanship of its parts, and the consummate skill with which they are put together, than for its complexity. In these

respects it resembles, and at the same time infinitely surpasses, the most perfect works of men's hands.

To preserve the health of this never-to-be-equalled mechanism (the human body) should be the care, as it is the duty, of every individual. Man should study his own frame, and the laws by which that frame is governed, because he contains within himself the means of ministering to his own growth, and, within certain limits, of repairing the many injuries to which he is exposed.

It is justly observed by Dr. Andrew Combe—

"That without some degree of attention to the process of eating, and some distinct perception of its gratefulness, the food cannot be duly digested; then it lies in the stomach for hours together without being acted upon by the gastric juice; and if this be done often, that function becomes so much disordered as to lose its power of digestion."

The uneasy sensations consequent upon an imperfectly masticated meal, nature's unequivocal language of remonstrance and complaint, sufficiently attest the necessity of the due performance of this preparatory process, even if we had no experience of the distressing symptoms which its habitual disregard entails. But how often is this fact lost sight of in practice. When patients complain of indigestion and its consequences, although a suitable diet is prescribed, how seldom is it accompanied with an injunction to masticate properly. Yet every one acknowledges this to be a point of the greatest importance. Many persons swallow food without breaking down its texture, from a habit of eating quickly; but in the majority of instances, this habit is first induced by diseased teeth, which render the side of the jaw in which they are placed, comparatively useless. The stomach has then an additional duty imposed upon it. Its strength and power of action are reduced, and indigestion, with its whole train of diseases, is generally the consequence—death the inevitable result.

THE USE OF ARTIFICIAL TEETH.

These preliminary remarks will set aside the necessity of further observation as to the propriety of being possessed of a good and sound set of teeth; for it must be very evident to those who have lost the entire set, or even part of it, that they cannot reasonably expect to derive that amount of benefit from what they eat, which they otherwise would, had their teeth been, even in a moderately perfect state. Therefore it must be highly gratifying to those persons who may have lost those useful ornaments of nature, so essential to health, life, and comfort, that, by the skill and ingenuity of man, the loss can be remedied with substitutes that will closely approximate to a full compensation, and by means of which, in most instances, the wearer becomes unconscious of labouring under a natural defect both in mastication and articulation. As instruments of use and comfort, their necessity cannot be for a moment questioned by public speakers, vocalists, and persons occupying situations where the organ of speech is called much into requisition. Consequently, artificial restoration ought not to be deemed an act of vanity or one of hyper-punctiliousness.

I will now direct the attention of the reader to a few questions, which are not the least in importance, and which suggest themselves to parties requiring the aid of a dentist; and in doing so, it is my intention to deal impartially and disinterestedly, by communicating the requisite information for the benefit of all concerned.

PAIN IN THE OPERATION.

The first and leading question that takes possession of a person's mind is,—"Shall I suffer much pain by having artificial teeth inserted?" It is a very prevalent conviction that there is much pain in the operation, and it is one of which I feel desirous that my readers should have their minds disabused, by making them more

familiar with the mode of fixing teeth, together with the requirements necessary to ensure success. I have not the slightest doubt upon my mind, that if those who are suffering from a protracted inconvenience in consequence of the loss of teeth, had but sufficient confidence in the skill of a dentist, and knew the very trivial pain, comparatively speaking, to which he would subject them,—I say, did they but know this, and the great amount of comfort that they afterwards would enjoy from the use of artificial teeth, they would not, I am well assured, be without, even one day longer than might be necessary.

The great dread of applying to a dentist will in some measure be got rid of, when I state, that the torture generally anticipated in the insertion of artificial teeth is totally at variance with the art of dentistry. I can safely assert that I have not met with one individual upon whom I have operated in the mechanical branch, who entertained such ideas of pain, who has not subsequently expressed astonishment at its almost painless character.

A case or two illustrative of this erroneous impression as to the method of replacing false teeth, and the extravagant notions persons encourage respecting them may not be out of place.

August 8, 1851.—Mrs. A., being recommended by her medical adviser, called at my establishment during my temporary absence, and consulted my assistant as to the propriety of having five central encisors. Like others she could not be persuaded but that there must be considerable pain in the operation, and consequently she deferred her decision until she saw me on the following day. I saw her and examined her mouth, and found the gums perfectly free from stumps, with one exception. After a few moments preliminary conversation she consented to have the model of her mouth taken. This is done with soft wax placed in a tray, the shape of the mouth. The lady

appeared to be very nervously excited, and suffering from a disease of the heart at the time, therefore I had to be cautious in my movements; not that she would have an operation to undergo of any kind this first visit, beyond merely placing a little soft bees' wax in the mouth, but the instant I held the tray she nearly fainted. However, by gentle perseverance I ultimately succeeded, I need not say without pain to my patient, and she promised to call to have them inserted on the 10th inst., but did not till the 12th. She then came and said, "I shall be obliged to give up all thoughts of having the teeth—(which were already made)—for I find that I shall not have sufficient nerve for the operation." She appeared in great trouble, and sat down in the waiting-room and wept very much.—When she was a little composed I naturally inquired the reason, and I elicited that it was from fear of some dreadful operation, combined with a conflicting desire to have the teeth, and she positively assured me that she was in such a state of excitement before coming, that she thought she would almost as soon commit suicide as undergo the operation. I inquired what were her ideas in reference to the method adopted by the profession, in fixing false teeth? She told me she thought we must lay open the gums with some sharp instrument, and force them into the jaw, or bore a hole through her own natural teeth to fasten them. I assured her such impressions were entirely opposed to the principles of the art, and explained the manner in which they were fixed by her own mouth piece and model. Subsequently she gained confidence and permitted the teeth to be inserted. From the accuracy of the model and bite, I felt certain I should not have the slightest trouble with them, and did not occupy more than five minutes in fixing. I then informed her I had completed. "Completed!" she exclaimed; "yes, and they are perfectly secure;" "Oh dear," she said, "how very

foolish I have been." I asked her if she had experienced any pain? "Not the slightest," she said, "I have been agreeably surprised." I have seen her several times since, and she has often expressed her astonishment that she should have been so alarmed.

The majority of individuals will suffer more pain in anticipating the operation than in reality. It sometimes happens that the whole of the stumps are in the gums, and the reader would perhaps wish to know what course is adopted in this instance. If they are strong and firm in, I should prefer them remaining, for they give a solidity to the gum. But should it be necessary to remove loose stumps or shells of teeth to secure a solid basis, for the gold plate to rest upon, why be alarmed? The pain will be comparatively trifling to the amount of comfort experienced from a good set of artificial teeth; for it is seldom that persons on applying to dentists, have teeth which must be removed or cut off that are strong. They are generally very much decayed and mere shells that require little or no effort to level them, and which cause little pain in their removal.

Case second.—During September, in the year 1844, a lady called upon me and desired to be furnished with six central upper incisors. On examination I discovered that her gums were studded with the wrecks of fourteen teeth, most of them loose and very much decayed, which rendered them a continued source of pain and inconvenience, and made the breath very offensive. She assured me she suffered most excruciating pain from them, and was obliged to exist upon the lightest food, for exercise her remaining sound teeth she could not, with any degree of comfort. This had reduced her, when I first saw her, to a very weak state of health from want of proper rest and solid food, and it was playing an important part in destroying a sound constitution. I advised the removal of the decayed teeth at once; for even

supposing that she did not suffer from them, it would be impossible to wear artificial teeth over those loose fangs with any degree of comfort or success. She consented, and I had no difficulty in extracting the whole fourteen the first sitting. She then waited, by my advice, for a month or six weeks to allow absorption to take place and her gums to harden, when I replaced the number she required; and it is worthy of notice that she recommended a lady on the day following, from whom I extracted twelve stumps, very similiar, also at the first visit.

Persons who may require false teeth to any extent, are generally similiarly situated, more or less; and I mention this circumstance in order to prove how easily such worthless companions may be got rid of, by a firm resolve on the part of the patient. Many individuals coming from a distance feel very much disappointed when it is known that artificial teeth cannot be completed on the first visit, as some advertising dentists would have them believe. We do not, neither can we keep them ready made for fixing, excepting in cases of pivoting. From three hours to a week must elapse, according to the number required, before they are ready for insertion; for they undergo a variety of processes in a mechanical point of view to complete them in such a manner as to make them permanently satisfactory.

As no other branch of artificial surgery has arrived at such perfection as dentistry, so none requires in its practitioner more ingenuity or greater nicety in combination, with a scientific comprehension of the anatomy, physiology, and pathology of the teeth, and their adjacent parts. The dentist should also possess and evince moral courage, and be prompt, alert, and dauntless. With these qualifications there should be united a conscientious determination to depart, in no instance, from the true principles of science, either to humour the patient, or promote any mercenary purposes of his own.

This is an exceedingly difficult stand to take, and, perhaps, a more difficult position to sustain. It is, nevertheless, the only one in which any dentist can honourably succeed.

INCONVENIENCE IN FIRST WEARING ARTIFICIAL TEETH.

The first effect in putting in an entire, or even partial set of teeth, is most unquestionably great discomfort; the mouth feels filled, the speech is rendered difficult and indistinct, and mastication appears almost impossible. This feeling, however, is more or less governed by the quantity inserted. There are cases where little or no inconvenience is experienced. But even under the most difficult cases, when they are properly fitted, and nicely adjusted to the mouth, the person using them will in a very short time overcome any inconvenience attending them, and after the lapse of a few weeks they will tell you, that "they would not be without them for double the cost."

It sometimes occurs that they require a little after adjustment, for the following reasons:—The base or plate upon which the teeth are fixed, may press equally on all parts of the gum, but all parts may not bear pressure equally; one part may be more sensitive than another, perhaps from disease, and the points so pressed on will become painful, unless the mouth piece or plate be adjusted to relieve them. But this will soon be discovered after they have been worn for a short time.

THE EFFECT OF ARTIFICIAL TEETH UPON THE NATURAL ONES.

"Will false teeth injure the natural ones to which they are fastened?" is a question often asked, and sometimes asserted with little truth, unless they are badly constructed. That teeth encircled by bands, occasionally decay, is a truth most certain, but this

might have been the case, independent of their being so; and this is the more probable, as the adjoining teeth have already been lost by the effect of that predisposition to disease. And if we may form any opinion from the number of patrons to the art, who are in the habit of wearing these substitutes, we should at once conclude that the idea is unfounded, more particularly when it is understood that in a great majority of those cases the teeth have been worn for years by persons, without experiencing any such loss or inconvenience.

DURABILITY OF ARTIFICIAL TEETH.

The following is one amongst a number of questions generally asked, "How long will these teeth wear?" Many persons seeking the aid of a dentist, anticipate that false teeth will never wear out, or require in any way renewing. I cannot for a moment think how such an idea could exist, when a little reflection should convince them of the uncertainty of our own natural teeth's continuance. The durability of artificial ones, however, will, to a certain extent, depend upon the quality of the materials used, and the skill employed in their structure—two very important considerations.

The great difficulty which dentists have to contend with is, the irregular formation of that most essential organ—the mouth. It is on this very point where the whole ingenuity of the art is called into action. A jeweller may endeavour to imitate, but it requires the experience of time combined with a good practical knowledge of the mechanism and anatomy of its most intricate parts, to accomplish, the object with success. Again, there is another point of no less importance. That is, in the very great nicety required in fitting teeth; after the utmost caution and adaptation of the materials requisite, you may fail without a proper knowledge, in their adjustment. I have seen artificial teeth worn, in which there was no possibity of mistaking them, not only to the wearer, who (of course)

has the most reason to know, but to any casual observer. This ought not to be the case. Teeth should be so adapted that the wearer becomes unconscious (as I previously observed) of labouring under a natural defect, both in their use, comfort, and appearance. Some people will wear them much longer than others without suffering the slightest inconvenience by accidents,—perhaps for five, ten, or even twenty years; but, on the other hand, they probably may not have them as many months without a breakage. The reason is this, that as it is with all things, so it is with artificial teeth. Some people are not quite so careful with them as others. Again, if artificial teeth are compelled by necessity to do the work of two distinct objects, namely, cutting the food and grinding it, for which purpose the front teeth were never intended,—then, of course, accidents must be expected; particularly so, if the individual is minus double ones. Also, where an irregularity in closing the teeth exists, such persons ought to have two sets, one to replace the other in case of emergency; for when once reconciled to their use, and the comfort they impart, considerable inconvenience will be experienced, if without them, during any little repairs they may require.

MATERIALS USED IN THE CONSTRUCTION OF ARTIFICIAL TEETH.

The next question I shall advert to, is one often asked, "Of what do dentists make their teeth?" You will probably be surprised when I tell you, that a considerable quantity of natural teeth are transferred or used for dental purposes. A natural tooth, of superior quality, will wear for many years and look well; but they are not in all cases to be depended upon, without a due knowledge of the constitution of the intended owner, in consequence of their non-resistance to the stream of acidity that flows from the salivary glands,

acting upon the enamel (the principle of which is carbon), and producing a gradual and sometimes immediate decay. But the very delicate and (if I may not use too strong a term) repulsive idea, connected with the constant use of a natural tooth, ought to render them obsolete in the practice of dental surgery. The high state of perfection to which the best mineral teeth have arrived, both as regards colour and durability, should be a sufficient guarantee for their general use.

MINERAL TEETH.

There is a very great diversity both in the quality and colour of mineral teeth, indeed, the manufacturing of them is an exclusive branch. It is not until nearly the close of the last century, that we meet with any account of an attempt to make artificial teeth of porcelain earths and mineral oxides, combined in such proportions as to resemble the natural enamel in colour and transparency; and the degree of perfection in which those qualities are now obtained, was not at once acquired, but has been elaborated through a long series of experiments, carried on from that period to the present with varied success.

The first essays in this art were extremely rude, and afforded but little promise of being ultimately rendered available; and its history, like that of every useful invention, exhibits a somewhat fluctuating but still progressive improvement.

We are indebted for the first effort in this important art to Duchateau, a Frenchman, and chemist of St. Germain-eu-laye. An attempt was made by him in the year 1774, to construct a "denture" of the porcelain ware, modelled after one in ivory, of which he had possessed himself, and he applied to a large porcelain manufacturer in Paris, and soon succeeded in making a perfect imitation of the original, in the modelling of which he displayed considerable ingenuity. A difficulty, however, here presented itself, on which he

had probably little calculated, but which, when discovered, would appear almost insurmountable, namely, in the contraction and consequent alteration of form which this substance undergoes in the furnace during the process of what is termed "baking." To render his experiments as complete as possible, he sought the aid and advice of M. Dubois de Chemant, formerly a surgeon, but at that time practising with considerable success as a dentist in Paris. To him he communicated his plans, and exhibited the first fruits of his labours, and this person thus obtained those hints and suggestions which, while they were necessary to the full developement of his plans, could only originate in the mind of an experienced dentist, and for the want of which Duchateau had failed to carry out his experiments to any useful result. M. Dubois de Chemant then took up and continued to prosecute those researches, and by the judicious admixture of some mineral oxides, he ultimately succeeded, not only in producing a tolerably perfect imitation of the teeth, but also in giving to that part which should cover or represent the gums, a rose tint. Such was the estimation in which the new porcelain or mineral paste was held, that it obtained for the maker, not only the patronage of the scientific and the wealthy of Paris, but what was still more valuable—Royal letters patent from Louis XVI. The title of inventor, however, was disputed with him by Duchateau, who, not unnaturally, felt aggrieved at thus being deprived of all participation in the benefits so abundantly accruing from the developement of an idea which he himself had thrown out to the world. But whatever may be thought of the validity of his claims, he failed to substantiate his case in a court of justice, and from that time relinquished a pursuit in which he had met with so little success. Amongst others devoted to the same pursuit, we find associated the names of Fonzi, Pernet, Desforges, &c., &c.

At the commencement of the French revolution M. de Chemant repaired to England, and there introduced the mineral paste under the most flattering auspices. What contributed in no small degree to enhance his reputation, and to bring about the present state of perfection to which artificial teeth are brought, were the exertions of gentlemen here mentioned, of whom the name of Lemale, of London, stands most prominent. His untiring zeal in facilitating the labours of the dentist, and preparing the various materials he requires, may well entitle him to gratitude and support. The name of Ash, a gentleman who has been long similarly engaged, deserves honourable mention, as connected with the manufacture of mineral teeth, for he stands alone as the inventor of the beautiful transparent gold tube teeth; also the name of Smale, of London; Helsby, of Manchester; Berrend, of Liverpool; Saunders, dentist to the Queen; and several eminent American dentists. The name of Lemal, however, takes the precedence of first introducing the mineral teeth to any extent, long before Ash was in the profession.

Such is briefly the history of the mineral teeth; but there are, as I previously observed, those of a very inferior description,—indeed not worth the labour of fixing.

GOLD, ITS ALLOYS, AND OTHER METALS USED BY DENTISTS.

Gold is far the best for mounting teeth, but it ought not to be less in quality than eighteen carat, or seventy five shillings per ounce. That used by the cheap advertising persons is of an inferior description, generally speaking, and acts injuriously upon the health of individuals who have the misfortune to wear it. Nothing can be worse than bad gold to have constantly in the mouth, in consequence of its being so much alloyed with copper or brass.

"The letters and paragraphs which have appeared in the newspapers within this last few months in reference to the inferior gold used by dentists, and its injurious effects, will we doubt not be productive of immense good to respectable practitioners; it will, moreover, be the means of directing public attention to a subject that seriously affects the general health and appearance of a considerable portion of the community. It will show how absurd are the pretensions, how inferior the article, and how bad the materials of an artificial tooth fixed on gold for 'five shillings,' which cannot be supplied by a conscientious and respectable practitioner, at a less cost than a guinea. Now there can be no question that, either the person holding out the 'five shilling' tariff, must use inferior materials and less skill, or the charge of the others must be an exorbitant imposition."—*Robinson.*

The time has now arrived for an explanation of these discrepancies in dentists' charges, and I purpose further illustrating them in the latter part of these pages.

The plates for a set of teeth, or even a partial set, should not only be of the proper standard, but of sufficient substance and breadth to ensure strength and solidity to the frame work when in use; and the solder employed in the fabrication should assimilate in quality to the plate. The less solder used the better the plate. The average price of gold, of the standard quality, is £3 15s. per ounce; and any respectable practitioner will use for a full, or a partial set, from an ounce to an ounce and three quarters, and in some cases even more; so that the gold itself will on the average cost from £5 to £7. This, it must be remembered, is independent of teeth and fittings, to say nothing of modeling, artistic skill, finish, adjustment to the mouth, and other preliminary operations, which are necessary for ultimate success, ease, comfort, appearance, and durability. Notwithstanding these facts, however, we

have it daily announced by advertisements, hand bills, and placards, that, whole sets of teeth can be furnished for from £3 to £10, each person warranting his wares to be made from the very best materials, with the best finish and artistic skill,—his gold unalloyed, and himself the veritable "Simon Pure."

Gold is not introduced in all cases, but inferior metals are used. Of these, silver, for plates, is one. It, however, soon changes colour in the mouth, and in a short time will corrode, be eaten away by degrees, and eventually fall to pieces; which, of course, must entril an entire wreck of the whole mouth-piece.—The reason is, that silver, however pure, will not resist the acidity of the stomach, where it is used for mounting teeth.

PALLADIUM FOR PLATES.

When this metal was first introduced into use for dental purposes, it was much purer than at present. Its properties and appearance very much resemble platinum. It wears equally as long as gold, when pure, and retains its colour, though not so well as the latter. The standard price at present is 34s. per ounce. There is another metal, very recently introduced, for plates, termed radium, or dental alloy, similar in appearance to porcelain, but inferior in quality. Platinum is also used, but not so generally as palladium. It is purer than the latter, and above all other metals, next to gold, in quality; but it cannot be worked and modelled with such facility.

BONE FOR PLATES

Is used where considerable absorption has taken place in the gums and alveolar process. Mineral or natural teeth are let in the front, and a sufficient depth is left on the outside margin to represent the natural appearance of a gum. This material in such cases, is indispensible. The only objection to it is, that not-

withstanding the greatest care as to cleanliness, in the course of time it will decompose. But I cannot give an opinion as to its durability. That will be entirely regulated by the constitution of its wearer.

Much has been said with respect to the comparative merits of bone or gold for plates. Some dentists will use bone in every case, however inapplicable; and others will use gold, although it may be equally inapplicable in that particular case. An invariable adherence to either plan, prevents the dentist from wisely affording the full benefit of the art; and the result is that for want of proper knowledge and judgment, sets of teeth are made which are totally unfitted for the wearer, occasion pain and discomfort, and have the effect of originating a very strong feeling against artificial teeth generally.

The husk of the sea horse, or, properly termed, the hippopotamus, is superior to any other kind for the making plates. The sea cow's tusk is also used; but I am not aware that in any case is the tusk of the elephant so used, in consequence of its inferiority.

Absorption in the gums occurs more or less in all cases, and to ascertain the extent of such loss of substance is very important previous to supplying artificial teeth, as by a judicious arrangement of the material in making good such losses with artificial gum, as well as teeth, where the loss is considerable, that perfect restoration of the features to their natural symmetry, which the art of dentistry, when properly exercised, is capable of producing.

GUTTA PERCHA FOR PLATES.

There has been an attempt made to substitute this material for the use of plates. But the result might have been expected. It has totally failed, in consesequence of its non-resistance to the temperature of the mouth, and the impossibility of permanently securing the teeth.

PHILOSOPHICAL PRINCIPLES ON WHICH ARTIFICIAL TEETH ARE FORMED.

To give entire ease and comfort to the wearer, the artist must be capable of engraving his work to fit the gum so perfectly air tight, that it shall adhere and remain securely firm in its place, for the purposes intended, as by the mere force of capillary attraction, and the pressure of the atmosphere, to ensure success in mastication.

On supplying a deficiency of teeth on this principle, the natural moisture of the mouth is affected by capillary influence, the moment the piece is introduced into its place, and the moisture being drawn in between the piece and the gum, the intervening air is driven out, and being thus excluded, the atmosphere acts with a force in proportion to the extent of the surfaces in contact, in keeping the artificial piece in its place. This force even on a small piece, is considerable, and on larger pieces frequently exceeds thirty pounds; yet not the slightest pain, pressure, or inconvenience will be experienced beyond secure adhesion. And the teeth will be easily removed by the wearer at pleasure, by simply raising one of the extremities of the plate with the tongue. But teeth on this principle cannot in all cases be applied with success, as it will depend upon the shape of the mouth, the palate arch, the depth of gum, &c. The springs ingeniously contrived to secure the mouth-piece in its place, and to prevent its falling out, must then be resorted to, but not in any way to inconvenience the wearer, either in use or appearance.

CLEANLINESS TO BE OBSERVED IN THE USE OF ARTIFICIAL TEETH.

The teeth, like tools, are instruments of use, and should be used and not abused. False teeth, of whatever materials they may be composed, require atten-

tion, but more in some cases than others. If gold be used for the base and mineral teeth, the mouth-piece should be taken out frequently, and well brushed with chalk and water. If bone be used and natural teeth, greater attention will be required. The surface of the bone ought to be kept well polished with chalk and wash-leather to enable it to resist the action of the solvent during their use. When taken out they should be kept in a glass filled with two-thirds of spirits of wine, and one of water. The spirit will aid much in preserving them, and they will therefore last as long again as they will if these means are neglected.

False teeth should be taken out every night, if it can be done with any degree of facility, and without endangering the adjoining teeth to which they may be fastened, and immersed in spirits and water until they are wanted. For this reason—very small portions of food, in the act of eating (however close the plate may fit the mouth) will force itself between, and if worn for any length of time, decomposition of matter will ensue, and produce a most unpleasant smell of the mouth-piece, thereby rendering the breath offensive. But this may be avoided by observing the above rules.

DANGER IN PIVOTING.

Before I close the subject of artficial teeth, I certainly should be guilty of omission, did I not make a remark or two upon the dangerous and even fatal results attending the operation of pivoting, or grafting the crown of a foreign tooth upon the fang of a natural one. This method of inserting teeth is almost universally adopted, either upon plates or in the manner above mentioned. It is much neater, I acknowledge, where one or two front teeth alone are wanting, or when secured upon plates in order to obtain a fastening, or to conceal ligatures. But the advantage gained by this will not counterbalance the risk attending it.

Tomes gives two instances of the severity, disease may assume when caused by laceration of the nerve of a tooth by drilling. He observes in page 281.

Case.—" T. S. age 30.—In 1840, the crown of the left central incisor was broken off by a blow from a cricket ball. I fixed the crown by a pivot; in 1844 the crown had become discoloured, and was replaced by the crown of a mineral tooth. The dentist who performed the operation found it necessary to increase the length of the hole in the stump for the reception of the pivot. This was done on the 8th of October; on the morning of the 10th slight pain was felt about the root of the tooth; towards evening the pain had greatly increased; the pivot was then removed; the night was passed in pain and without sleep; and in the morning, a fit of cold shivering was followed by heat, which terminated in profuse perspiration. 11th,—The pain still increasing and attended by swelling of the face, added to which there was great sympathetic fever; pulse 130, full and hard, and accompanied by head-ache; twenty ounces of blood were taken from the arm, and salines were administered; fomentations were applied to the face, and a dose of Dover's Powder given at bed-time. 12th,—Considerable and extending inflammation of the mouth near the pivoted tooth; more swelling of the face; head-ache less severe; six leeches were applied over the gums; blood taken yesterday rather buffy. 13th.—Swelling and pain, much the same; a small abscess formed in the roof of the mouth near the tooth; this was opened; the fomentations were continued, and Dover's Powder repeated at bed-time. 14th.—The abscess in the roof of the mouth was again opened, and a considerable quantity of purulent matter let out; the inflammation, pain, and swelling much the same; six more leeches were applied, followed by fomentations and poultice; the Dover's Powder repeated at night. 15th.—Symptoms no better; three more leeches were applied to the gums, and the fomentations were continued. 16th.—From this time the symptoms gradually abated, but left a small abscess over the stump, from which a considerable quantity of pus escaped. On the 5th of November, (he states) he applied to me; there was still pain in the stump; the gum was swollen, and pus escaped from an opening opposite the end of the fang, which, on removal, was found to be discoloured and evidently dead; the operation was followed by the escape of a quantity of unhealthy pus. From this moment no further inconvenience was felt, the gum healed, and the whole mouth returned to a state of health."

I mention this, because a similar case occurred during my professional experience, but with protracted severity.

Case.—" The lady in question, a Mrs. B., for whom I had replaced two artificial mineral teeth, some four or five years previously, and in

that case a pivoted plate was inserted without the slightest inconvenience. In May, 1850, she again applied to me in consequence of the loss of two other teeth, and was desirous of having the plate extended; by her request, I purposed fixing on one side a pivot, to what I considered a firmer stump, and which occasioned the necessity of again drilling; but before I made three revolutions with the drill, the pain upon the nerve became so acute, that I was obliged to desist; and although I extracted the stump, a few hours subsequently the pain increased, and inflammation extended, swelling of the face, and suppuration in the antrum followed. Her medical advisers were called in almost immediately, yet she continued for the space of three months, with more or less suffering, under their uninterrupted attention; but ultimately, with exfoliation of part of the alveolar process of the upper jaw, and the loss of the left canine tooth, followed by the escape of a quantity of unhealthy pus, she began from that moment gradually to recover."—*See Disease of the Antrum.*

Tomes cites a case in page 321, and says—

"The following statement was placed in my hands by a medical man, who had some knowledge of the case which is related:—'———, Esq., aged 25 years, tall and thin, but apparently in good health; on his marriage trip he visited Paris, and there had the misfortune to break off a front tooth; wishing to conceal the accident from his wife, he went immediately to a dentist. The tooth was pivoted, and, I have no doubt, carefully, for the dentist was of great celebrity, and the necessary concealment seemed insured from the time of the operation; however, he had severe pain in the stump, which increased for four or five days; when he left Paris for Rouen; upon arriving there, the pain had become excessively severe; he consulted a medical man, but, it was too late!! Trismus came on within twenty-four hours, and was soon followed by tetanus and death!!!'"

Such then are the consequences resulting from this ill-advised method of fixing teeth, against which (I consider) too much cannot be said.

DISEASE OF THE ANTRUM

May arise from various causes, such as animal or mineral poisons, or diseased teeth; but in dental surgery, it is caused by drilling stumps for pivoting.

The antrum is a bony cavity situated in the upper maxilliary or jaw bone, extending from the side of the nose to the second molar tooth; it is furnished with a

foramen (or passage into the nose) and is lined with a delicate membrane which is subjected to similar diseases as the membranous lining of other cavities, such as inflammation and suppuration, which latter consequence may superinduce a caries in the surrounding bone, and unless a passage is formed for the matter to escape, the result will sometimes be serious. Inflammation of the antrum may be known by the foramen connecting this sinus (or canal) with the nose, becoming stopped up; and an intimation is given that the antrum is diseased, by a throbbing pain at the side of the nose, and a redness and tension in the part affected; the pain sometimes darting towards the temples. The mode of cure generally adopted, is to extract the first or second molar tooth,—if the latter be decayed, that ought to be removed in preference. The foramen being situated nearest the extremity of the antrum, the fangs of the teeth sometimes make an opening to it, as the bony partition is so thin; but when that is not the case, a perforation ought to be made with an instrument, to allow the matter to escape, that has formed during the suppurative process. It then would have an artificial passage into the mouth. To keep this open Mr. Fox recommended a piece of elastic bougie (made of prepared India rubber) to be passed through the socket, and occasionally removed for the purpose of cleansing the cavity by injecting a mixture of tincture of myrrh and water, or a weak solution of nitrate of silver. This appears to be the most scientific method, and the only one in which success can be relied on in arresting serious consequences.

PART II.

DENTAL SURGERY.

We have now arrived at the second division of our subject, namely—Operative Dentistry. This is a subject which has engaged very marked public attention, but it is not my intention in this small treatise to enter into a history of the various forms that diseases of the teeth assume, but rather to content myself with the effect produced, and its most effectual remedy; and in doing this, I will endeavour to pursue such a course, as, I hope, will not endanger the patience of my readers, by discussing a volume of uninteresting matter.

OPERATIONS ON THE TEETH.—SALIVARY CALCULUS.

If the teeth be neglected for any length of time, which is too often the case, a deposit called *tartar*, will settle upon them, especially about the lower incisors and upper molars. The quantity that secretes in some cases is really astonishing, and if allowed to remain, will cause great destruction, not only to the teeth but generate disease in the gums also.

The action of mercury upon the constitution, is one of the most speedy and unfailing causes of the accumulation of tartar. This mineral not merely induces an increased and unhealthy action in the salivary glands, but causes the gums to swell and inflame, and extends its influence to the alveolar process of the jaw.

In these extreme cases, from the inflammatory action in the neighbouring parts, assisted by the formation

of calculous matter (improperly termed tartar) which, being a simple phospate of lime and animal matter, adheres to the teeth like cement, gives them a very filthy appearance—and they drop out apparently in a healthy state.

SCALING THE TEETH

Consists in removing the salivary calculus with small steel instruments expressly adapted for the purpose. This simple and useful process, when nicely performed, tends very much to the preservation of the teeth. Some persons who form the mistaken impression, that it injures the enamel, prefer the tartar to remain; thereby suffering much injury both in appearance and in reality. The operation is so painless that a child may undergo it.

CLEANING THE TEETH.

To remove calculous matter and cause the teeth to look white, many persons have recourse to the use of acids. This practice cannot be too much censured, as it has a tendency to soften the enamel (the principle of which is carbon) and produces almost immediate decay in them. Did persons give their teeth one moment's attention, and consider the necessity of performing those daily ablutions, so essential to their preservation, and act accordingly, it would become a pleasing, refreshing, and habitual duty, and as easily performed as washing their hands. Early habits of cleanliness cannot be too rigidly enforced. It becomes in time an established principle, and one of the great indications of a well regulated mind. If the teeth are free from irregularity and perfectly clean, being the first feature that attracts a person's attention, they are almost certain to elicit admiration. However neatly you may be dressed, if your teeth be black or broken, they greatly interfere with that pleasing expression of countenance, which you other-

wise would possess. I have often heard individuals boast that they had never paid any attention to their teeth, that they had never cleaned them in their life. I can only observe that this particular instance reflects little credit upon their general habits.

Allow me to mark out a simple rule:—Arrange your tooth powder, brushes, &c., &c., upon your dressing table or wash-stand, within arms reach, and clean your teeth every morning when you wash yourself. Attend to these directions for a fortnight, then double that time, and so on. By perseverance you will surmount the difficulty, and the duty will become so familiar that you will not feel comfortable unless you perform it. Some people will remark—"It is no manner of use, cleaning my teeth, I have used all kind of tooth powders and brushes, and not the least benefit have I derived from them; my teeth are as bad as ever." Very likely; nothing more probable. But then they require scaling. Examine them and you will find considerable incrustation of tartar. If not, it will be a calculous deposit of green, yellow, or black, the removal of which is absolutely necessary before they can be cleaned.

TOOTH BRUSHES.

The best form of tooth brush is that in which the bristles are so arranged as to have free space to act by their own elasticity, not only in sweeping over the suface of the teeth, but in entering into the interstices; for unless this be done, it is impossible for the teeth to have that cleaning which is necessary.

AND THEIR USE.

The tooth brush may be used in an horizontal or lateral direction, but on no account upwards or downwards, as by its action it would be likely to separate the gum from the teeth, giving rise to bleeding, and injuring the delicate processes of bone to which the gum is attached.

TOOTH POWDERS AND TINCTURES.

Tooth powders should by no means contain acids of any description, as their effects are certain, but those ingredients which tend to the preservation of the teeth. Such are, powdered myrrh, bark, orris root, cuttle fish, prepared chalk, &c. One ounce of each of these will form an agreeable and excellent powder, which should be kept in a closely stoppered bottle. Should the gums be in any degree tender, three parts tincture of myrrh to one part water, may be used as a gargle, night and morning: this has both a cooling and healing tendency, and is equally refreshing.

TOOTH ACHE.

This painful disease is so well known, that it requires no great effort to describe it, were it necessary to do so; I shall therefore consider myself abundantly requited if I can be of service in prescribing a remedy for one of "the ills that flesh is heir too."

The greatest cause of this complaint, is decayed teeth; the inner portion of which being exposed (in consequence of the tooth being diseased) to the extremes of heat and cold, constantly keep up that inflammatory action upon the nerve, which, in the first instance, the disease gives rise to, and produces the most excruciating agony! What felicity would it be, could one obtain a little relief, without that horrid idea of extracting. What would one not give for even one moment's ease? A little forethought might have prevented all this. Had the family dentist been consulted, he could have saved the tooth, and prevented the torture. But by neglecting the proper means of safety, the punishment certainly follows.

To relieve this pain, one moment must not be lost. We must strike at the root of the disease, and lessen the flux of humours in the part affected. This must be done at once, by taking mild purgatives, such, for instance, as castor oil, salts and senna, pills, seidlitz

powders, &c., and repeated as occasion may require. The formula will be found of service if your medical adviser be not at hand, and if it can be obtained with facility, in conjunction with the warm bath, not less than 95 degrees of heat, or more than 100. A little lint dipped in spirit of camphor or naptha, and applied, in many instances is of service. A mustard plaster applied over the part, and allowed to remain on twenty minutes, will sometimes do good; but the most effectual remedy is a piece of well tempered steel.

NEURALGIA, TERMED TIC DOLOUREUX.

This complaint may arise from cold, foul stomach, or decayed teeth. It may be local or constitutional, not exactly confined to the nerves of the face or teeth, but affecting other parts of the system also. It is attended with convulsive twitchings, and it may be traced, shifting its agonizing attacks, along the whole course of the nerve affected—sometimes darting with excruciating pain, and often excited to an extreme degree of violence, both by day and night. Many writers have endeavoured to account for its origin; but it is mere speculation. It may be an excited state of the nerves; but its causes are involved in obscurity; and as it is one of those complaints belonging more to the government of the medical practitioner, than the dentist, I forbear offering any further remarks.

DECAY OF THE TEETH

May be produced from a variety of causes—inattention, local inflammation, or colds. There are other reasons of a more serious character, either hereditary or constitutional, or those that may arise from the injudicious use of mercury. When the latter is the case, we can scarcely calculate to what extent this mineral may exercise its baneful influence. The slightest appearance of decay in one tooth may cause

great suffering; at the same time it is possible that the whole mass may become a complete wreck, without experiencing the least pain. Such is the character of this disease, that it may advance to those dangerous limits, and the teeth break off during the act of masticating, before you are at all aware of its reality: thus proving the necessity of having them carefully examined at least twice in the course of twelve months.

Case.—Miss F., aged 16, in August, 1844, came under my observation, having been recommended by a friend. She requested my advice, and seemed desirous to have six central incisors replaced. On examining her mouth, I discovered, to my great surprise, that she had not one tooth above the surface of the gum. All were gone, excepting black and diseased fangs, and without suffering the least pain from them. I must acknowledge, that during the whole course of my practice, I have never witnessed a case so serious, nor a wreck so complete as in this instance. Nothing could be done for her unless she submitted to have an entire set: this she assured me was beyond her circumstances, and, I need only remark, that she left me very much disappointed.

The foregoing case is illustrative of the fatal effects of hereditary, or constitutional causes. In some instances, whole families have lost one particular tooth, and at the same age, respectively. This loss, from disease, or any other cause, is much to be regretted, particularly in persons so young. Its causes may be traced from father to son, or from mother to daughter. The line of action and influence is very evident and conclusive. It attacks, generally speaking, the enamel, or crown of the tooth, either individually or collectively, and when such is the case, its ravages ought to be arrested by the timely aid of a skilful and experienced dentist.

STOPPING DECAYED TEETH.

Whenever it is possible to preserve a tooth, it should never be extracted. Persons suffering from tooth ache have often had teeth removed, which, if properly treated, might have been preserved for years. Nor ought they to be filled, or the nerve excited by

pressure. When it is in an inflamed state, no respectable or honourable dentist would fill a tooth with stopping of any description, unless it were to allay pain under these circumstances. Many individuals never think of applying to a dentist, until they feel the effects of decay; and those who have suffered from having a tooth injudiciously stopped at this time, and afterwards were obliged to have it extracted from excessive pain,—consider it useless. But a knowledge of what stopping is intended to effect, when well and timely performed, would convince them that no operation connected with dental surgery can be attended with better success.

MATERIALS USED FOR STOPPING.

There is perhaps no part of the dental art, in which greater mistakes have been made and delusions practised, than in that termed stopping the teeth. The most preposterous statements may constantly be seen, respecting cements, which are said, when applied, almost to rival the teeth in appearance and durability. Such pretensions, carry on the face of them, the stamp of deception.

There are many kinds of stoppings in use at the present time, but

GOLD FOR STOPPING

Is far the best where it can be applied with safety, but in all cases it will not remain. The cavity must be well cleaned out previously, also the decayed portion of the tooth. Many persons are in the habit of filling their own teeth. This, however, they cannot effectually accomplish in all cases, as it requires small steel instruments for the purpose.

CEMENTS FOR STOPPING.

Where the cavity of a tooth is so large that the walls are too thin to bear the pressure necessary for

the insertion of the gold foil, the amalgam of silver, or of palladium may be used, and a paste formed by its mixture with quieksilver.

This cement will remain useful and permanent for years, where other stoppings would not. The only objection to it is, that it changes colour and disfigures the front teeth, and therefore it is better adapted for the molars. All stoppings in the shape of an amalgam change colour in the mouth. Vegetable cements, such as gutta pereha, &c., have been tested for this purpose, but they will not answer, or resist the heat of the mouth; for temporary purposes nothing can be better.

All cements containing mercury, should not be interfered with but by those who have a knowledge of its properties and proportions, unless it be in a prepared state, in consequence of its dangerous tendency. An evidence of this came under my notice a short time ago, and by way of illustration I will give the case.

"Mrs. L., on the 18th August, 1847, sent for me in great haste, desiring me to wait upon her immediately. On my arrival I found that she was suffering intense agony from a decayed tooth, together with mercurial symptoms. It appeared that the lady had been induced to purchase a box of a certain advertised Enamel for the teeth, in consequence of labouring under severe pain at the time, with an idea that it proposed to cure the tooth ache. She handed this stopping over to me, when I found it contained metals such as pewter filings, with a redundance of mercury, out of all proportion. This stopping she had applied according to the given directions. The nerve, bear in mind, was in a very inflamed state previously, and the result was, in lieu of the filling relieving, it increased, the pain to an intolerable degree; and when I first saw her, the face had swollen to such an extent that I could scarcely recognise the features. This, together with the effects of the mercury, rendered the case very serious; in fact, it laid the whole nervous system prostrate. Her medical adviser was called in by my request, and he administered the usual remedies, and subsequently I extracted the tooth, as soon as the instrument could well be inserted. A considerable quantity of unhealthy pus then escaped, and by the skilful and unremitting attention of her medical attendant, she ultimately recovered, but was for some time in a very weak state."

The danger arising from the majority of adver-

tised stoppings to the non-professional man is, that they are generally in separate portions of filings and mercury, and it is not in all cases to be expected that he will, however plain the directions, be as careful, and use that caution in mixing them, as a dentist. The mercury ought to be well squeezed out through a little linen or cotton rag; and in no case ought the tooth to be filled when there is the slightest inflammation on the nerve.

EFFECTS OF MERCURY UPON THE TEETH, ITS ABUSE, AND INJURIOUS TENDENCY UPON THE CONSTITUTION.

A medical friend of mine, who has had frequent opportunities of watching the baneful effects of this mineral poison, both as a local agent and an internal administrative, who also from surgical practice in those marked cases, where not only the teeth, but their seat in the jaw, and the jaws with the palate-arch, from over doses of mercury have given way—has kindly given me several cases, in addition to many which I have myself witnessed. Teeth, under such influence, are known to fall out by self agency.

A case illustrating this, where the upper and lower portion of the jaw gave way to this poison (for I cannot name it otherwise), has lately come before me. The two portions of bone or processes containing the first and second molars of the upper and lower jaw, fell out from the mouth of a boy, twelve years of age, and his life was with difficulty saved, by the skill and timely attention of a properly authorised medical practitioner. This was entirely the result of an over-dose of mercury, and will no doubt cause the unfortunate individual a life of wretchedness, and cast a shadow over his future prospects.—*See Engraving.*

I have recently witnessed a second case, where not merely the palate bones were destroyed, but not a tooth that came out had the least appearance of decay.

The bone of the jaw that contained them, I must state, was dead. Sloughing with ulceration and fistulous openings, accompanied this destruction of the mouth.

Mercury being a mineral, it is often administered where an animal poison in the system exists; and if not watched in its action, its effects are fatal. This remedial agent may do good in the hands of a skilful practitioner, but in the possession of those empirics, who glut for gold, not caring for the life of their patient, it is as a viper's bite, and almost as deadly in its effects. Quackery, under any form, is repulsive and despicable, but when covered by the plea of doing good to the human system, either in a medical or artificial point of view, is tenfold more so.

If a jeweller were to be entrusted with a watch to repair, a business wholly distinct from his, and he were to break or derange the machinery through ignorance, though the expense might be greater, the instrument could still be made perfect as at first. But if a living body is placed in the hands of an advertising empiric to repair, and he undermines its very foundation, and renders it a tottering mass, doomed to linger out its few remaining days in agony, there is no help for it—the injury is for the most part irretrievable.

The destruction of life, the sacrifice of human beings that this class of fiends will have to answer for, is not only extensive, but alarming to contemplate, especially in all large towns, such as London, Manchester, Liverpool, Birmingham, and throughout the densely populated manufacturing districts. None but those who have lived in towns similarly situated to these, and observed the movements of these quacks, can form a just estimate of their character. They hover like VULTURES over the heads of a confiding public, and gnaw the very VITALS of their dupes. They carry in their hands MISERY!! the very element is POLLUTED by their presence, and from their mouth is sent forth POISON—and DEATH!!!

DISEASES OF THE PALATE.

The roof or arch of the mouth, so essential for a clear articulation, is occasionally diseased from birth, but may be injured by other causes, such as scrofulous affections, animal or mineral poisons, &c., &c. Cases of this kind repeatedly come under my immediate observation, and sometimes are truly distressing. The speech, instead of being distinct and harmonious, is rendered confused and unpleasant. The food is carried during deglutition, into the nose, and mixes with the mucus, a portion of which returns with it into the mouth, rendering it very disagreeable, and a constant source of anxiety to the individual. To remedy this an artificial palate must be made and inserted, to which the French have given the name of "Obturateur," (from the Latin) to stop up. This branch of mechanical surgery has been much improved, and Mr. Snell, surgeon-dentist, of London, has written a very interesting work on the different modes of fixing "Obturateures," with illustrations.

ON THE EXHIBITION OF CHLOROFORM, OR ÆTHER, AND ITS INHALATION.

These preparations are now in their effects certain, having been used for the kind purpose of obviating pain, during the extraction of teeth, and other more important operations of surgery. However, I should state that the effect produced by these agents on some constitutions, is fraught with great danger; an over dose causing cerebral congestion; the contrary result to what the practitioner intended, and I have known several instances of total failure in relieving pain by these means.

Chloroform is considered more efficacious than æther, and many cases are, no doubt, on record of its usefulness, and also of its destructive properties. It should never be used when pulmonary disease exists, or that known as hysteria, accompanied with affection of the heart.

To Dr. Morton, of Boston, America, we are indebted for the discovery of æther; and to Dr. Simpson, of Edinburgh, for chloroform. Dr. S. found that the latter, similarly administered, not only induced the same effects as æther, but that it did so more rapidly and agreeably to the patient. A less quantity is also requisite, and it is likewise less expensive. However, upon the authority of such eminent men as Drs. Simpson, Snow, and Warren, who have written particularly on this subject, we are warranted in concluding—that, on account of the hazardous tendency of these applications, they ought not to be used in dental surgery.

EXTRACTION OF TEETH.

Few of the minor operations in surgery are so extremely painful as the extraction of teeth, though not unfrequently that operation is consigned to persons who have no pretension to professional knowledge, and in many instances even to the lowest mechanics. Nevertheless it is one which requires for its judicious and safe performance, as much care and firmness, and as correct an acquaintance with the anatomy of the parts concerned in it, as many of the operations in surgery to which a much higher degree of importance is attached.

That in the great number of instances this operation is performed by mere mechanical force, cannot be denied. The frightful consequences which result from persons placing themselves under the care of individuals unacquainted with the anatomy and structure of the teeth, cannot be too severely commented upon. To enumerate all the dangerous and even fatal results, would occupy more space than the limited intentions of this small volume will permit. Suffice it to say, the repeated accidents such people meet with, consequent upon a want of skill and properly adapted instruments, must be anticpated, and could I but relate the particulars of every instance, would, I feel confident,

make a sensitive mind shudder at the very thought. All those fractures, bruisings, lacerations, and complete stripping of the gums, loosening the neighbouring sound teeth, partial dislocation of the teeth, slipping of the claw from a diseased tooth to a sound one, and its extraction in lieu of the intended one, severe bleeding, inflammation, suppuration, breaking of the jaw or alveolar process, and with it other sound teeth, caries of the same, and even death itself from one or other of the above causes, otherwise laying the foundation for a long standing disease, are not trifles. And to substantiate these facts, read the medical journals; the cases there recorded unfold a fearful tale, where unnecessary violence has been used, together with want of skill in the operation. But observe what Mr. Clendon says upon the subject, in his work upon the extraction of teeth—

"If then we admit the necessity for extraction to exist, the assumed cruelty is at once disposed of, and can no longer be urged against the operation; although I fear it will justly attach to the manner in which it is too frequently performed. Indeed the strong conviction I feel on this point, and an earnest desire to remedy the evil, have been the inducement to obtrude my views on the medical profession and the public. To the former I should consider an apology to be due, were I not satisfied that men of education and of liberal and enlightened views will readily concede that any person, even of ordinary talent and ability, who has for a long period devoted his individual attention to a particular study, is more likely to excel therein, to take a clearer and more comprehensive view of the subject, and to arrive at more correct conclusions than they whose time is occupied by a variety of pursuits, most of them erroneously considered of greater importance, which necessarily occupy their attention, so that the teeth and dental operations are nearly lost sight of, and consequently deemed a matter of little moment."

Again, he remarks—

"I would suggest to those gentlemen who are indifferent to, or dislike the operation, a very simple alternative, namely, never to attempt the removal of a tooth, except in case of great emergency, but to transfer their patients to those who devote their attention exclusively to this branch of the profession. Under such circumstances, dentists would cheerfully operate for the poor on the recommendation of a medical practitioner, as it is not an object with

them of a pecuniary consideration."—*T. Chitty Clendon, Surgeon Dentist to Westminster Hospital.*

"When it is remembered that this protracted and painful operation is occasionally rendered necessary, by the crushing and breaking the tooth by the old method of extracting, some idea may be readily formed of the dangerous consequences which may follow the operation; and how many are there who from a dread of the pain, and injury to the jaw, prefer the misery of keeping in their mouths, carious and putrid teeth and stumps, offensive to themselves and to all who approach them, injuring their health by the imperfect manner in which their food is masticated, and producing the worst form of indigestion and its consequences. * * * The key instrument is the one that causes the greatest amount of pain, and is the most likely to inflict injury on the tooth and surrounding parts. It admits of great and unnecessary violence, and considering the bungling manner in which it is used, it ought to be banished from practice altogether."—*Henry Gilbert, Surgeon Dentist; Inventor of the Patent Fulcrum Chair for the better Extraction of Teeth. M. R. C. S. L., L. S. A.*

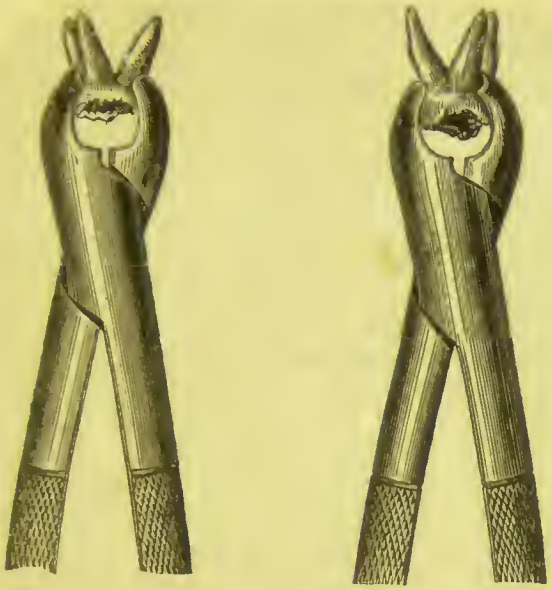
With these remarks of Mr. Gilbert, I quite agree; and, I believe, that more accidents are attributable to that instrument than to any other used by the profession. I am decidedly of opinion, that, did dentists, surgeons, druggists, and others, who are in the habit of extracting teeth, once accustom themselves to the use of properly adapted forceps, they would dispense with the use of the key instrument, unless it were in an extreme case of necessity.

There is a variety of forceps in use among dentists, but those invented by Mr. Tomes, the able lecturer at the Middlesex Hospital, are considered (for general purposes) the best. But even these, professional men must acknowledge, have their disadvantages; particularly those adapted for molar teeth. In such cases, where there is but the mere shell of the tooth remaining for the instrument to grasp, without endangering the crown of it, with the purchase required for its extraction, the curved sharp edge of those forceps would cut it off, leave the fangs in the alveolar process, and place the practitioner in a very awkward dilemma—that of choosing between the forceps in question, and the key instrument previously mentioned.

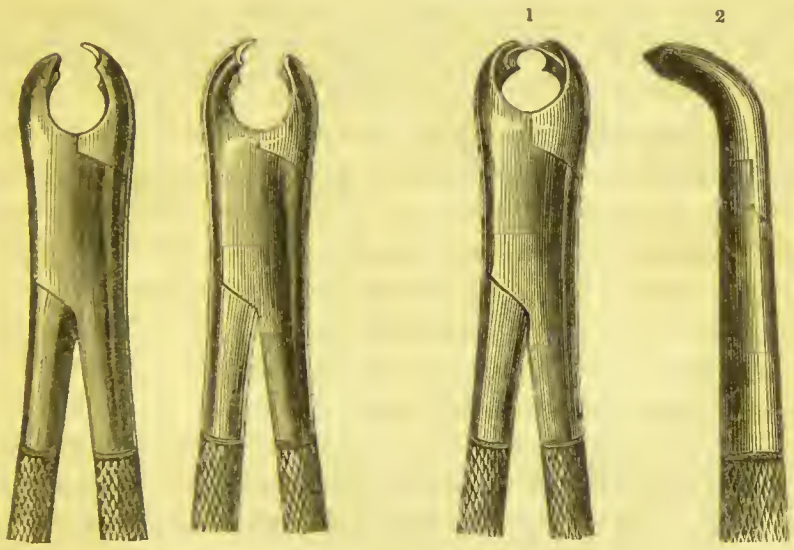
This directed my attention to the possibility of inventing one more in accordance with the anatomical structure of those teeth, to obviate the danger and much of the pain and risk attending the operation; and I have produced one, which I have found to act extremely well; and which, I trust, will meet the wishes of the public.

These forceps, it will be seen by the annexed engraving, are so adapted, that on one side of the upper molar teeth, which have two spreading fangs, the bill of the instrument will slip between, underneath the crown and alveolar process, and on the opposite side, will grip the neck of the tooth, thereby preventing the least possibility of slipping or cutting off, and will readily lay hold of the most difficult molars of the upper jaw, for which this instrument is adapted.

The suggestion presented itself to my mind by being put in possession of the Hawk's Bill Forceps for removing the lower molars. Who the inventor of that instrument is, I know not, but all I could say in its favour, from practical experience of its utility, would not be too much; and those parties to whom I have recommended it, will, I feel assured, agree with me, that it is the best instrument in the profession, for the purpose it is intended. I have given an engraving of it, together with my own, and I think my brethren in the profession, will allow them to be a decided improvement upon the forceps now in general use.



The above represent the improved right and left upper forceps gripping the necks of the upper molar teeth.



The forceps without the teeth.

1. The forceps for the lower jaw.
2. A side view of the same shew-the depth of bill.

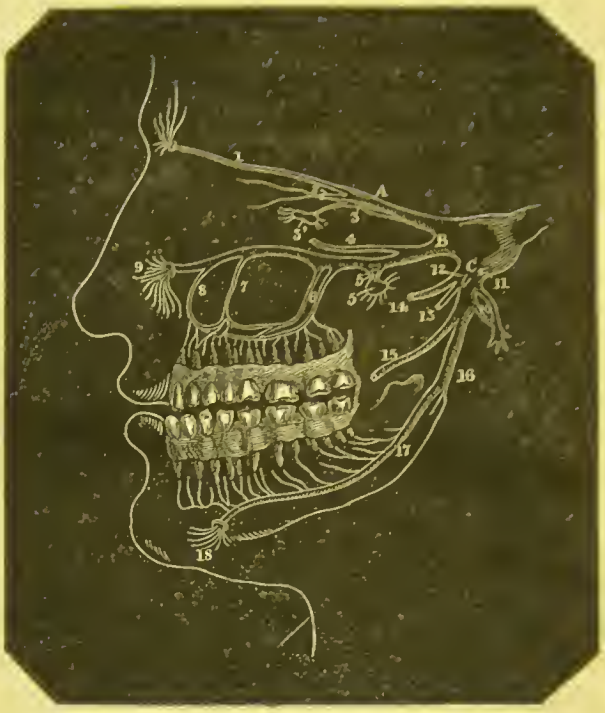


Diagram of the Fifth Nerve, with reference principally to the distribution of the Dental Nerves and their connections.

A. Ophthalmic division.

1. Frontal. 2. Lachrymal. 3. Nasociliary branches. 3'. Lenticular ganglion.

B. Superior maxilliary division.

4. Malar. 5. Pterygo palatine. 5'. Meckel's ganglion. 6. Posterior dental. 7. Lesser anterior dental. 8. Greater anterior dental. 9. Infra orbitary branches.

C. Inferior maxilliary division.

10. Anterior auricular. 11. Masseteric. 12. Deep posterior temporal. 13. Anterior deep temporal. 14. Buccinator. 15. Lingual. 16. Mylohyoid. 17. Inferior alveolar. 18. Inferior labial branches.

From Tomes.

PART III.

PRACTICAL RULES TO BE OBSERVED DURING THE PERIODS OF DENTITION.

ON THE PROGRESS OF THE TEMPORARY TEETH, AND THEIR DEVELOPMENT.

We now arrrive at the third division of our subject, namely, Dentition. This is of great importance, inasmuch as it concerns parents who are in the habit of making inquiries of professional men, and those who profess not that equality, but who, from the knowledge of others, rest satisfied with suggestions vague and unsatisfactory, taking nature as their guide, without guarding against the actions of her laws. They would confer a blessing on their offspring did they but pay proper attention to the primary formation of the teeth, and thus alleviate the sufferings too often experienced in their development.

The time of the appearance of teeth varies from five to eight months from birth, and great care is requisite in the means used to allay the irritation consequent upon their development, for the gums are then in a high state of inflammation. This, however, depends in some measure on the state of the stomach, and often gives rise to convulsions and fever. In this stage the gums should be lanced, the bowels purged with some mild aperient (such, for instance, as small

doses of fluid magnesia or castor oil); and when there is a tendency to thrush, the admixture of borax, myrrh, and honey, will be found serviceable as an application.

To enter upon a history of the consequences which result from the irritation of teething, would be to treat generally of all diseases of infancy, for there is scarcely a disease to which this period of life is subject, that is not more or less produced by this cause. And all that art or skill can suggest to relieve the infant sufferer will prove useless, unless proper attention be observed in the first stages of dentition.

Great responsibility is incurred by those who have the management of children, particularly during this process. The varied forms disease may assume, and the great amount of sufferings they must endure, is not only painful to witness, but in too many instances perilous to their very existence. And yet how very indifferent many parents are to the burst of anguish from the little infant, which pain gives rise to. They will take it as a matter of course, and exclaim—"O, it is only its teeth," as if the child were not possessed of feeling. There is a pain very much akin to this, which afflicts persons in a more advanced stage of life, and which, it is a remarkable fact, excites about the same amount of sympathy. This pain we have treated of as "the tooth ache," and he is a fortunate individual who has not experienced it. If the reader has known it, let him picture to himself the horrors of that acute pain, and its influence upon the nervous system, even when confined to one tooth, and then let him think what must it be when felt in several at once, and continued week after week; how very reducing it undoubtedly must be to the system, and more particularly to one who cannot devise means to relieve itself; and yet, as I have before said, there is but little sympathy with the unfortunate child whilst in this condition. As a general rule, the process is

left to its own eourse, and all the mother or nurse does, is not to attempt to obtain permanent relief for the little sufferer, but simply to stave off the ineonvenienee by the applieation of some one of the many powerful nareoties offered to them. And I should be doing injustice to this very important subjeet, did I omit strietly to enforce the imminent danger arising from the use of

GODFREY'S CORDIAL,

White Mixture, and Tincture of Opium, as dangerous remedies for young children. Skilful practitioners preseribe opium or laudanum with reluetance. When the patient is a baby, the dose they give is very minute. But parents and nurses, who would shrink from giving laudanum under its own name to an infant, are deluded by the names of "Carminative," "Cordial," "Soothing Syrup," a eelebrated something, or a real blessing to mothers, with the high sounding title of "ROYAL INFANT'S PRESERVATIVE." A perusal of the advertisements of these nostrums cannot fail to convinee every one possessed of eommon sense, of the great want of dependence to be plaeed in them. They pretend to eure all the diseases to whieh infaney is liable during teething, and the nurse or mother in a moment of exeitement fly to them—the result being invariably disappointment and regret. They are applied for the purpose of producing sleep, and how often is this the SLEEP OF DEATH. This is too often verified in thousands of published eases, and, beyond doubt, there are many that are never exposed. Sueh ignorance, or want of attention, admits of no exeuse, when there exists so many eharitable institutions, where the best medieal adviee may be had gratis. It is really astonishing that so little sympathy and attention is paid to young ehildren. Generally speaking, mothers reflect not on their own responsibility, and the absolute necessity

of consulting proper advice, and obtaining the attendance of a respectable medical practitioner. Such a procedure is not only the most safe and economical, but might be the means of saving numbers from a premature grave. It is their province, not only to form the body, but also to give the mind its most early bias. They have it very much in their power to make their children healthy or invalids—useful in life, or the pests of society.

Mrs. Ellis, the talented authoress, observes, that, "While the education of females implies little more than what relates to dress and public show, or superficial accomplishments, we have nothing to expect from them but ignorance in the most important concerns of life; and is it any wonder when they become mothers that they should be ignorant of the duties imposed upon them."

One great duty of the mother is the infusion of intellectual and moral tendencies into her children. But this is often in a great measure either tacitly or openly tabooed. Still it is a duty in the performance of which the mother is directly interested, and accordingly as she acts with respect to it, may she expect to injure or benefit the coming generation—to make the fulfilment of their duties as parents facile or difficult. It is of vast advantage to be born of healthy and virtuous parents; it is a further advantage to be the children of those whose intellect has been thoroughly disciplined and developed; and a further advantage still to be surrounded in infancy and early childhood with a mother's care, and a mother's blessing. But she who abandons the fruit of her womb, as soon as it is born, to the sole care of some hireling, deserves not the proud name of MOTHER—that one sweet word, which is connected with a thousand pleasing recollections of the past. It is her whom nature has designed for nursing and superintending the management of her own children; and how, may I ask, can

she be better employed? The destinies of the race depend more on its future mothers than on anything else; they are born to be the makers of the future men. Clever women are of great importance to the world. Woman has most to do with all that awakens the young spirit in its early freshness, and makes that child, which is to be "Father to the man."

We have suffieient evidence from the annual registers of the dead, that one-third of the children of Great Britain are sent to "that bourne from whence no traveller returns," under six years of age. Now, this is very plain, that if the deaths of those children were a natural evil, animals of the lower creation would be as liable to die as man at this age, but we find it by no means the case.

"In children teething, and the diseases arising from interrupted dentition, are the most formidable to which they are liable. Indeed on reference to the bills of mortality of the metropolis, it will be seen that of those who die under the age of 15, four per cent. die from teething. This will at once show that too much attention cannot be given by those engaged in medical studies to dentition and its coincident disorders."—*Tomes on the Teeth; Surgeon Dentist to the Middlesex Hospital.*

"The treatment of the various diseases in dentition, requires only a reference to their cause, to be rational and generally successful. Of the general remedies the most important are, those which are directed to the digestive organs, and others to act upon the skin and liver, with the use of the warm bath; the gums should be carefully examined, and wherever there is any unusual redness or turgescence over the part where the next tooth is expected to appear, the including parts should be freely and effectually divided. It is not sufficient that the incision should merely pass through the gum; the lancet must be carried down to the rising tooth fully, and only stopped when the resistance of its point is felt against the edge of the instrument."—*Bell on the Teeth; Surgeon Dentist to Guy's Hospital F.R.S., F.L.S., F.G.S., &c., &c.*

FOOD FOR CHILDREN.

Nature not only points out the food proper for an infant, but actually prepares it. The mother's milk, or that of any healthy nurse, is unquestionably the

best for them. Children may seem to thrive for a few months, without the breast; but when teething, small pox, or any other disease incident to childhood comes on, they generally perish. Cramming an infant, as many persons are in the habit of doing, with such indigestible stuff as syrups, cordials, oils, and sweets of various descriptions, whether they be requisite or not, can scarcely fail to make it sick, and is more likely to occasion disease than prevent it. If the mother or nurse has sufficient milk, the child will seldom need any other food until the third or fourth month, it will then be proper to give it, once or twice a day, food, the most easy of digestion, such as water pap, milk pottage, of good light bread and milk, and not to overload the stomach; as soon as it shows an inclination to "chew," give it a crust of bread. This, not only nourishes the gums, but promotes the cutting of the teeth, and obviates the necessity of resorting to improper things for that purpose; such, for instance, as hard coral, ivory, metals, &c., &c. If you wish to give it something to amuse it, procure an India-rubber ring, that is more adapted than any other toy. But a crust of bread is better, it will induce a flow of saliva, which, by mixing with the nurse's milk in the stomach, will afford an excellent nourishment, too valuable to be lost.

Many people imagine that the food which they themselves take, cannot be improper for their children. But this idea is very absurd and erroneous. I have seen parents allow them, as soon almost as they can walk, to eat all kinds of food for human purposes, and which, for them, is quite opposed to the proper course of nature. The all-wise Creator has furnished his creatures with a diet, affording the most nourishment for the different periods of life. The instruments most suitable for trituration are also arranged in such order as to tend to the support of health, life, and comfort; and it is for His creatures to use them with discrimination for their well-being.

Animal food, fermented liquors, bacon fat, and salted provisions of any description, are very hurtful to children; they cause flatulency, distend and relax the stomach, and produce gross humours. Their diet should be of the plainest kind and nourishing; varied, of course, according to circumstances.

THE TEETH, AND TIME OF THEIR APPEARANCE.

The first or temporary set vary in their development. Nature appears to make a digression from her wise laws, in certain cases, as in the comparative excess of suffering that some children will have to endure over others, during the progress of dentition.

When the first teeth are complete, which happens generally about the second year, they are ten in the upper, and ten in the lower jaw; and although small, they are sufficient to fill the jaws at this age, and like the teeth of the permanent set, are subject to decay.

Attention to the growth of the temporary teeth is not of the same importance, as in the permanent set, although, while shedding them, great care is requisite. This event takes place about the age of six or seven years from birth. They should therefore be carefully watched from time to time by the family dentist, for upon the management of them at this crisis, depends in a great measure, the regularity of the teeth in the second dentition, and any deformity in their arrangement may by him be prevented.

THE DEVELOPMENT OF THE PERMANENT TEETH.

The second or permanent teeth when complete, are thirty-two in number, and generally appear in the following order:—

Between the ages of seven and twelve years, the temporary teeth, which are twenty in number, are replaced by the same quantity of permanent ones; during this period the jaws enlarge sufficiently to

admit of the second molar teeth coming through. In the course of the next eight or ten years, the jaws again enlarge, admitting the third molars, or dentes sapientæ, generally termed the wisdom teeth. They, at times, in their development, give much pain, and soon fall to decay. There are four of them, one on each side, at the extreme end of the upper and lower jaw.

The teeth offer an anomaly to all other structures comprised in the animal body. Thus, when the permanent ones have arrived at their full growth, they depart not from this feature, unless they decay; affording an example, quite opposite to those necessary appendages, the hair, and the nails of the hand and foot.

IRREGULARITY OF THE TEETH.

The permanent teeth are liable, in some instances, to various irregularities, as regards closing the upper and lower together, and likewise in their temporary and permanent position; occasioned probably by the absorption of the fangs of the first set, not keeping pace with the advancement of the teeth of the second dentition; the former forcing the latter to take an irregular direction, and in their progress, an unnatural position. This would require a process of surgical and mechanical treatment to remedy, if not arrested at an earlier period of their growth. Sometimes it will occur from an overcrowding of the permanent set, and the irregularity may be caused by a want of sufficient room in the jaws for the usual number of teeth. Of course, I would not advocate the extraction of the temporary teeth, either hastily or indiscriminately, for the supposed purpose of giving free liberty to those of the permanent set; nature will intimate the proper time for their removal.—*See Engraving.*

Mr. Bell, surgeon-dentist to Guy's Hospital, has shown that Mr. Fox, dentist, and the author of a cleverly written work upon the Teeth, was in error, when he advised the removal of the temporary teeth, for slight causes, and cites a case which came under

his own knowledge, in which much mischief was done by a person acting under this impression:—

"On examining the mouth of a young person, I have frequently been grieved to find an irregular permanent tooth removed, and the temporary one, the cause of the irregularity, still remaining. And the canine tooth, the most serviceable in the upper jaw, whose space has been encroached upon by the bicuspide, too early developed, extracted, because it projected, while the latter, which might have been spared, was left in its place. To those who have paid more attention to this subject, such errors (betraying, either carelessness or want of observation) may appear incredible, but unfortunately, there exists too many evidences to confirm the truth of those observations."—*J. Chitty Clendon, Surgeon-Dentist to the Westminster Hospital.*

"The conclusions I draw from the foregoing remarks may be summed up in a single sentence. I believe that Dental Science has not advanced *so generally* in England as in the United States, although this home truth may not be very palateable to the profession generally, but I make the assertion advisedly and without in the remotest degree reflecting upon the many able and scientific men in England who may be said to represent the very quintessence of dental knowledge and mechanical skill in their own country.

"It will be remembered that Burdmore was the first writer in England, so far as we are aware, who drew attention to the subject, or systematized the practice of Dental Surgery, in the year 1770. It was he who first drew attention to 'the disorders and deformities of the teeth and gums;' and although his notions were somewhat crude and at variance with our present knowledge, his writings at this early period exhibit a somewhat extensive practical acquaintance with the subject upon which he wrote. Subsequent writers have not, I think, given Burdmore that fair share of credit and praise to which he is entitled, if we for a moment consider the untrodden path of science into which he was the first to adventure. Burdmore found the practice of Dental Surgery, such as it then was, in the hands of barber surgeons, shoemakers and mountebanks, and their knowledge of the subject as narrow and circumscribed as was their practice, it being limited to the mere extraction of teeth.

"It was in this primitive state that Burdmore found the dental profession; he raised it from obscurity, and made it of sufficient importance to attract the attention of the celebrated Hunter, who wrote in 1771. Although Hunter did turn his attention to the subject, nevertheless Dental Surgery advanced but slowly, and all the theoretical knowledge that existed upon the subject up to that time, was derived from Hunter's works.

"In 1803 the work of Fox appeared, which not only treated the teeth medicinally and surgically, but also embraced a portion of the

mechanical treatment; and the novel and interesting field of enquiry which it opened up, naturally attracted the observation of the scientific and curious. For many years subsequently the art appears to have remained in abeyance, medical pupils being to much engrossed with their studies upon General Anatomy and Operative Surgery to pay any serious or continuous attention to this part of the human frame. In fact, specialists who devoted themselves exclusively to the knowledge and study of one portion of the body, were looked upon, even at this period, with something like suspicion and distrust, and the treatment of the teeth by medical men was confined to mere extraction.

"Although a few abstract treatises followed by these standard works, it was not until the appearance of the scientific publication of Bell, in the year 1829, upon the Anatomy, Physiology, and Pathology of the Teeth, that Dental Surgery may be said to have engaged any particular attention, or to be studied as an important collateral branch of Medicine and Surgery. It was only then that the teeth were first pointed out as an integral part of the human economy, and as such, entitled to form an important element of consideration in the treatment of nervous diseases of the cranium. Works of a similar theoretical character had appeared upon the Continent, but no work so comprehensive and perfect as that of Bell had yet been produced. The author, a man of profound physiological and pathological observation and acquirements in the departments of human and comparative Anatomy, could not have failed to produce a work worthy of his correct views, his eminent position and his great talents. Although some of his theories have within the last few years been questioned by modern writers; yet, as a whole, the talent and research it displays are universally admitted, while, as a sound, rheoretical work, it has never been surpassed.

"It may, perhaps, be scarce necessary to mention, that some valuable works supporting the views of Bell subsequently appeared, and numerous smaller compilations and contributions to this department of science, in the shape of pamphlets, of which it is unnecessary to mention more than the titles. The year 1830 was prolific in these ephemeral publications, varying in price and quality of matter."—*Extract from an Address by James Robinson, D.D.S. to the Society of the Alumni of the Baltimore College of Dental Surgery.*

PART IV.

IMPOSITIONS PRACTISED IN DENTISTRY.

Perhaps this, of all the other parts of this little work, treats of a subject which is of the greatest importance to the general reader, who may feel the necessity for artificial teeth. Because, although the subjects already treated of may, and will, no doubt, interest many who find their cases to be similar to some therein spoken of, yet this one must tend, if properly digested, to the certain ultimate relief of those ills under which they now suffer. It is a duty which we owe not only to ourselves, but also to mankind generally, to expose and hold up imposition whatever may be its guise; but more especially is it our duty so to do, when the practice of that imposition entails on its unhappy victims, not merely pecuniary loss, but physical suffering, resulting at times in the most fearful consequences. And that this is the case in Dentistry is unhappily but too true. Indeed there are but few professions, if any, in which imposition is carried to such an extent as in this; and to give aught like a complete exposure of the manifold phases which it assumes, would be to extend this pamphlet far beyond its intended limits. However, though I may not be able to give a detailed account of the impositions in Dentistry, I will go so far into the matter, as will I trust show persons having occasion for the application of the art, the absolute necessity of care in their choice of a dentist, and the many dangers

to which they are liable if they are not careful. Indeed this will be more in keeping with the proposed character of this my production, which professes rather to convey a clear idea of the matters treated of, than, by the use of technicalites, and by becoming diffuse, to confuse the reader, and cause him to fall into error.

An early chapter of this work alludes to the extremely complicated and delicate machinery of the mouth—machinery than which nothing can by possibility be more beautiful, and at the same time more liable to be disarranged by mal-treatment. And yet strange as it may appear, this delicate piece of divine workmanship has been made the basis of imposition the most palpable—imposition entailing on the sufferers by it an immense amount of pain and inconvenience—imposition robbing them not only of their worldly means to an extraordinary extent, but of their health; for it is but too well authenticated that lack of knowledge in operations in Dentistry has, in a vast number of cases, sown the seeds of permanent disease, which have germinated with immense rapidity, and brought on dreadful suffering and early death. Surely if the public were but thoroughly aware of this fact, they would not rush forward, as they now do, and prostrate themselves under the wheels of this latest Juggernaut. Surely they would no longer allow themselves to be blinded by the terms of advertisements, the very professions of which, if the matter were thought over by a sensible person, must convince him that they cannot be true, but that, by exaggeration and positive untruth, they seek to trap the unwary, and, if possible, to lead them on to their destruction. However, we will return to the consideration of the impositions, and the impostors themselves. And first of the impostors :—

If my reader will but take up the most convenient country or metropolitan newspaper and scan its advertising columns, he will observe, under various attractive headings, the announcements of professional, or

professed dentists. In a vast majority of these eases, he will, on a close examination of the name, be struek with the extraordinary likeness whieh it bears to those of Judaieal mould. Perhaps the name, though spelt somewhat differently, has the preeise sound of one with whieh he is perfectly familiar as belonging to some respeetable Jewish tradesman in the town, in or near whieh he resides. Or it may be that, to the exaet letters of the beginning of the name of some Hebrew friend, he finds taeked on some English termination, giving the whole a hybrid appearanee, and ealeulated to give rise in the least suspieious mind to shrewd ideas with respeet to its Hebrew origin. Indeed the fact is, that nine-tenths of the impostors in Dentistry are members of the Hebrew raee, and either not being willing to disgraee their faith by the faet being known, or for other reasons, they endeavour by a total change of name, or by the alteration of a letter or syllable, to eonvey the impression that they are men of English origin. These men have, perhaps, by some means or other, obtained the least possible smattering of the art of Dentistry, and never heeding that line of Pope's whieh says

"A little knowledge is a dangerous thing,"

Whieh perhaps in no ease ever applied so well as in this, hesitate not to announee themselves as profieients, and venture without the least eompunetion to affirm that their mode of treatment stands singular in its results, whieh in faet it does, though not exaetly in the sense they would wish to eonvey. A large and respeetable-looking house is taken in some good thoroughfare, and huge announeements of the name &c., of the *gentleman* make their appearanee, on Brobdignagian brass plates at the door. He has, by the adviee, or at the partieular request, of "numerous friends," been indueed to open a branch establishment here, in eonneetion with his principal one in —— where he has been in a most flourishing praetice for—nobody knows how long. He

has—that is, he says he has—the recommendations of a large number of "the faculty" in testimony of his surpassing abilities. Even royalty itself has been under his hands and been fortunate enough to come in for a share of those blessings—in the shape of operations in Dentistry, which it is his sole aim to scatter abroad among his fellow-creatures. Emolument cannot be his object, No; he has a higher aim. He wishes to see the manifold advantages of artificial teeth extended to suffering humanity wherever it is to be found, no matter whether among the high or the low, the rich or the poor, and to this end he has devoted his life. Admirable philanthropist! Often has he burned the "midnight oil" in active and untiring research after such means as will enable him to carry into effect his good Samaritan views. And at last he has been successful. Close attention to the subject has enabled him to establish a line of practice peculiar to himself, and if the public do not avail themselves of his experience and talent, they will never cease to regret it. These men, as we have said, do not hesitate to take regular establishments, and too often at the expense of their dupes. There is another class to whom I cannot possibly do justice. Gifted with a genteel exterior, cultivating, enormous moustachios, exhibiting a considerable quantity of Birmingham jewellery, and possessed of any amount of assurance, they may be called birds of passage. For their stay is not long in one place. Suddenly they make their appearance, in couples, in our large towns "for a limited period." Handsome apartments are engaged, and advertising is carried on with great spirit. They profess to do the thing "cheap." Their talents are even greater than those of their more settled brethren, and as a consequence they are the more desirous that no person shall be debarred the benefit of them. Thus a long residence in one place would give one town an unfair advantage over another, in the inestimable benefit to be derived from their knowledge;

and so their stay in every place is but brief. Certain ill-natured persons are constantly asserting that if they were not to make short stays, they would run a great chance of making very long ones in certain colleges established in most large towns, for the express purpose of taming wild spirits—the recommendations to which colleges are thickly bestowed by individuals known among the vulgar as county court judges, magistrates, &c. It really is astonishing that people can be found to say such ill-natured things; and yet I have heard it said of a gentleman, who visited Hull about twelve months ago, and who left it somewhat hastily I confess, that he was precisely the same individual who had been in that town a few years before,—he having altered his name, and shaved off his upper lip decorators. However, I would not be misled by any such tales as these. Have I not their advertisements before me in which a sufferer from any damage in the teeth is shown the most easy way to have it remedied, and that, I must add, without resorting to the most indispensable machinery of a Dentist's laboratory.

And now, having spoken some little about the *impostors*, I will turn to the *impositions*.

The first mode of imposition practised, which I shall notice, will be the overcharging system. And in briefly treating of this subject, I hope to be excused if I may in aught seem prolix; for really this of all other impositions is so gigantic and generally practised that too much pains cannot be taken to caution persons against subjecting themselves to it. In considering this imposition we shall see the object of the advertised 5s. tooth. It is simply to attract persons to the establishment, where, having had the teeth inserted, such a charge is then made as astonishes the patient; and, should he refuse to pay, means the most extraordinary are used to draw forth the money. Few persons would credit to what an extent this is carried.

Perhaps the following case, which was narrated to me by the individual alluded to, will throw more light upon the subject than anything I could write.

In August, 1842, Mr. B., a gentleman farmer, who resides a few miles from Manchester, was desirious of having replaced a left central incisor, the loss of which subjected him to considerable inconvenience. Like all other sensible men, he took a newspaper, and in the advertising columns of the journal he patronised, he found, very prominent, the announcement of just such an individual as he thought he ought to consult. Of course he wanted skill, and this the individual evidently had who advertised, for his announcement discoursed fluently of his extraordinary skill in fixing artificial teeth—of the wonderful improvements he had recently made, and the vast superority which his teeth possessed over all others, a fact which was peculiar to his own practice. "Verily" quoth my informant, "if I had only had that son of Israel in my farm yard I would have shown him with a horsewhip, a peculiar practice of mine, which he would not easily have forgotten." Then again he wanted cheapness, and surely no one could complain of five shillings, or even ten shillings for a tooth, at which prices the advertiser's extensive practice in the manufacture of teeth enabled him to offer them, and which terms, owing to the great advantages he possessed over other dentists, could not be approached. Well, it was evident here was the man to supply the incisor wanted, and accordingly our friend in unconscious ignorance visited him and allowed him to take an impression of his mouth. He was desired to call again on the following market day to have the tooth fixed, and was punctually in attendance. The "specimen of art," the palate of which was of silver, and which was mounted with a common French flat tooth was inserted, and the piece was fastened with a wire which encircled the right central tooth. When the operation was completed the charge was asked. "Seven Pounds Ten Shillings" was the modest answer. I need hardly say that our friend was astonished,—particularly after the five shillings announcement. Indeed he was excessively indignant, and in no measured terms informed the operator that he was resolved not to be imposed upon. That individual in a very easy manner answered that it was no imposition, adding coolly that it was a very moderate charge. Of course our friend felt determined not to pay the sum demanded, and drew the attention of the gentleman to his terms as advertised. "Oh," said he "the present transaction has nothing whatever to do with those charges. I have replaced for you one of my very best teeth, and I desire no more than will be commensurate for my labour." My informant offered One Pound Ten Shillings for the tooth, thinking that ample remuneration. He laid that sum on the table and made his way to the door. But he was not to be allowed to escape in that way. Oh no; the operator very coolly locked the door, put the key in his

pocket, and then with the most consummate impudence, informed his victim that he was his prisoner until the full amount was paid. Thoughts of sledge hammers flitted across the mind of our friend as he witnessed this action, but as they were not at the moment available, he was compelled to fret and fume for some time longer in durance vile. He was kept there so long, that his resolution was completely worn down, and as moreover he was neglecting important business, he paid over the sum demanded, and was then allowed to depart. But now hear the sequel. The tooth supplied he could never wear in comfort, and further it was the means of his losing the adjoining central incisor, in consequence of its being such a worthless piece, scarcely having the slightest claim to art. Both the teeth he has since had replaced by a respectable surgeon dentist, who fitted them for him of a first-rate quality on gold plates, and wearable with comfort for considerably less than one half the cost of the single useless incumbrance for which he had paid so dearly.

Here, then, is one instance, authentic I pledge myself, of the voracity, I may call it, of these harpies. Unfortunately for the victim in this case, it was successful, and the public may rest assured that it is by no means singular. Perhaps another instance (in which, however, the attempt was not successful) will be interesting.

In September, 1848, Miss G — a governess at Hull, found it absolutely necessary to consult a dentist, and through a sense of delicacy—I might call it false delicacy—not wishing to ask the advice of her family surgeon on the subject, as to what dentist she should consult, she came to the conclusion to visit one whose advertisement in the newspaper she had noticed. From the imposing appearance of this person's establishment, she at once concluded him to be a respectable practitioner. On entering the house, every thing seemed in keeping with its external appearance. The gentleman examined her mouth, and then in order that she might not take a leap in the dark, she inquired what would be the charge for the teeth she required. I should mention that she wanted four teeth and a block; this block is a piece of bone that is inserted upon the plate of the teeth, at the posterior part of the mouth, and was at that time (and indeed, is some times now), for the loss of the grinders. The answer to the lady's enquiry was, that he really could not give an estimate, unless he had the impression of her mouth. At his request she allowed it to be taken, and she was then told that if she would call in the course of a week, he would be able to give her an idea, of what the cost would be. At the expiration of the time appointed, the lady waited upon him again, when lo! the teeth were made, and ready for insertion too. This time, however, he had reckoned without his host. He showed a

very great degree of attention to the lady, and was very anxious to insert the teeth. But Miss G. was not so to be done. She requested before she had the teeth, to know the price of them. "Twenty Pounds"! was his answer. She very plainly told him that she should not take them on such unreasonable terms, and intimated to him, that as she had not ordered them, she should be perfectly justified in going elsewhere. He told her that he could compel her to pay for them, inasmuch as he had the model of her mouth, and the teeth were made to that model, and therefore he had sufficient evidence of the order being given. "Sir," she said, "you know it is an untruth,—you know that I did not give any such order. My visit to-day you are well aware, is for the sole purpose of learning your terms. Both the ladies I have brought with me, require an equal number of teeth as myself, and unless you think proper to reduce your charges, not only will I refuse to take your teeth, but they also with me, will go elsewhere. You made the teeth on your own responsibility, take the consequences. If you take the case to court, as you intimate you shall, I shall not hesitate to meet you there, confident in the justice of my cause!" This appropriate reply, coupled with the prospect of losing another prize, had its effect. The price was reduced from Twenty to Ten Pounds—the teeth were then inserted, and the money of course was gathered into the coffers of this Shylock.

Now this like its predecessor, is but one, out of some hundreds of similar cases, which have occurred, and are constantly occurring. Of course these swindling scoundrels, do not care one jot for recommendations, and consequently, the more they can get out of the victims, who fall into their hands, the better for themselves. I have known cases in which, by a process similar to the one in the last case, Fifty Pounds, Sixty Pounds, Seventy Pounds, and even as high as One Hundred Pounds, have been demanded, and in some instances obtained. Process of law you are threatened with, if you refuse to pay, and many persons are thus intimidated, and they pay; and in some cases I am sorry to say large sums have been got, by these vagabonds, in courts of law where the cases have been heard. This, however, is not always the case, for in one or two instances, when the teeth have been produced,—like Peter Pinders razors, to have been made to sell,—but where the parties have been compelled to pay extravagant prices for them, orders have been

made that the money be refunded, and the teeth returned. Even here, however, the victims have been done, for the victimiser has without the least hesitation absconded, and thus effectually prevented any return of money on his part. I know that, in many cases, persons are thus excessively charged, because, thinking that Dentists, like surgeons, are honourable professional men, they do not deem it right before hand to inquire their charges. Now, I would respectfully suggest that it would be well if persons on applying to a Dentist without recommendations as to character and skill, particularly to strangers, migratory persons, and Jews, would, before giving their orders, make an agreement as to terms, and the principles upon which they purpose having the teeth fixed. For it is a fact that all Dentists are well aware what the cost will be after examining the mouth, or before taking a model. Therefore, should any individual, I care not who he be, dare to equivocate as to his ability to give an estimate, the patient may depend upon it that his intentions are not honourable.

Another system by which the overcharging imposition is carried out is, by what I will call double charging. Let us suppose for a moment that you have followed out my suggestion, and made an agreement, of course you then will imagine that you are safe. But it is not so, if you chance to have fallen into the hands of one of the harpies I have described. Your teeth are made, and you expect you know what you have to pay for them. However, you are perfectly astonished on hearing a demand for considerably more than you agreed for. If you venture to hint to the gentleman that the charge is not exactly in accordance with the agreement, he will coolly inform you that, that was simply for making the teeth, or something of that kind, and that the extra charge is for replacing, and so forth. Now, no Dentist has any right to make any of these extra charges, for if he undertakes to make a set of

teeth, and agrees as to the charge for so doing, he includes beyond all doubt the replacing of them, and that too in such a manner as they may be worn. No respectable Dentist would for a moment think of future unlimited fees, but these gentlemen of whom I have treated, have no sense of moral honesty. Their motive is that of somebody else, of whom we have read, "Get money, honestly, if you can, but, if not get it," and following this out to the letter, so long as they can by any means draw forth from the pockets of their victims large sums of money, they laugh at all talk of honesty, honour, and such like attributes, which ought to adorn and distinguish the professional man.

Let us now turn our attention to another form of imposition in which these individuals are great adepts, which however, can only be carried out in large towns. Two, three, and indeed any number of these swindlers, form a partnership in iniquity. One will take up his residence in one part of the town, another in a different part, and so on. No partnership is announced, but when one of them gets a patient, he first draws as much from him as possible, and then having supplied him with teeth that never were intended to fit, after many pretences to adjust them, he tells his unfortunate victim that this is a peculiar case, and that Mr. So-and-so (his partner be it remembered) has made these cases his particular study. Then Mr. So-and-so is consulted, and after he has got as much more cash as possibly can be extracted, he either tells the person that the case is hopeless, or turns him over to a third harpy, and so on. Of course, the larger the town the better for the purposes of these gentlemen, and at present London swarms with them. Many persons are apt to imagine that Londoners are a class of persons extremely difficult to cheat. Nothing can be further from the fact. In their city flourish greater and more enormous frauds,—fed too

by the Londoners themselves, than in all the rest of the large cities and towns in the provinces. And this is the case, particularly in Dentistry, more especially with respect to the imposition of which I am now speaking. Owing to its vast extent, London offers great facility for this double dealing. Perhaps a case which came under my notice this year, illustrative of the manner in which it is carried out, may not be uninteresting.

A lady in London, wanted a new set of teeth, and seeing, as she went along one of the leading thoroughfares, a neat glass case, containing pattern sets of teeth, which was affixed to a doorway, she was induced to enter. Everything within led her to believe that she was in the establishment of a respectable person: she expressed to the individual who made his appearance, her desire to be furnished with a set of teeth, and she made an agreement as to the price, that price being Twenty Five Pounds. Consequently he took the impression, and of course dispensing with all preliminaries in preparing the mouth for the reception of teeth, such as removing loose stumps, or levelling others firm in the gum, or without the slightest consideration of the healthy or diseased state of those parts at the time the teeth were inserted. But in they must go. The money perhaps was wanted; we will not say that he did not know better, to take the charitable side of the gentleman's abilities. But on taking the model of her mouth on her first visit, he, after that operation, demanded a deposit of one-half the price, a condition which is not unusual, but a customary rule amongst Dentists, for this very reason, that the teeth when made are valueless to any one but to the party whom they are made for, and if that person takes no further notice of them beyond giving the order, it will be so much loss to the Dentist. However, the demand was readily and unsuspectingly complied with; she was then requested to return at the end of a week to have the teeth inserted. "The end of a week," exclaimed the lady, "why, I understood from your advertisement that, in consequence of your great improvements, you were enabled to complete the teeth the first visit, and save your patients the trouble of a second sitting; and it will in a measure inconvenience me to remain in town for a week, as I have previously made certain arrangements and appointments. But if you cannot do them in less time I must submit." At the expiration of that time, the lady again paid him a visit, and the set was inserted in due form. After this was done, a demand was made, beyond the sum agreed for, of Fifteen Pounds. She felt very indignant at this, but she was told so much about them, that she paid the money, and left. However, the teeth lacerated her mouth to such an alarming extent, that, after persevering with them for

some few days, she was obliged to call in her medical adviser. Subsequently she visited the dentist again, and, after several alterations, for which he charged, he told her, that hers was a very peculiar case of malformation in the structure of the mouth,—that he had done all he could for her, and urgently recommended her to consult a dentist who had made these peculiar cases his particular study. Accordingly she went to this second individual, who quickly told her that the teeth must be taken to pieces. She inquired the charge, but he could not tell her at that time. She must allow him to take an impression of her mouth. This she did, and then went away, promising to call again. At the appointed time she was punctually in attendance. He told her that he had made the requisite alterations, and produced the teeth. "But," says the lady, "I gave no instructions as to alterations." "O, I beg you pardon, madam, but you are labouring under a mistake; it was my impression that it was perfectly understood; in fact it would be impossible for you to wear them, I can assure you, in their previous state." "Well, what do you propose charging me, for I have paid a considerable sum for these teeth already? what with alterations, &c., they will, I am afraid, impoverish my finances, and I begin to regret having speculated in such an expensive undertaking." "Well," says he, "I have had very considerable trouble with them, they have been a very difficult case indeed, and if you will be kind enough to be seated, I will fit them in." To this she consented, and after he had completed them, he said, "Beautiful! beautiful fit, madam, this case deserves Fifty Pounds, I can assure you, but I shall only charge you Twenty Five Pounds." Of course she felt very much surprised, "and was it a very difficult case, do you say; dear me, I cannot speak plain," says she. "Extremely so, but you will soon speak fast enough, madam;" and this she had every reason to do subsequently. If I must draw my conclusions from circumstances, I should not hesitate to give an opinion as to what class of persons these belonged. The teeth were not one step removed or altered for the better, if altered at all, from their former position, for there was neither make, nor fit, nor anything to recommend them. The gold used was very little better than forty shilling gold, and was calculated of itself to produce severe inflamation in the parts it rested upon. The result was the lady had to seek medical advice. Thus, then, she paid no less than Sixty Five Pounds, for what? For a piece of mechanism composed of materials which, in all probability, would have undermined her constitution, could she have worn it. This, however, fortunately (I may say) for herself, she could not, and the teeth were utterly valueless.

Here, then, is another instance of extortion, the most villanous—of a double-handed swindling, which stands almost without a parallel in the darkest annals of robbery, and dishonesty. I am perfectly aware that few

persons will give credence to all these facts (for facts they are), more particularly if they themselves have been fortunate enough always to fall into the hands of those who have been honest and straight forward with them, and under whom they have experienced some of the benefits derivable from Dentistry, when applied by those who thoroughly understand their profession. Still I would have them fully impressed with the truth of what I state, because I know that is necessary for the amendment of it. If, however, they think the cases I have already quoted extraordinary, I beg to assure all, that such is not the case. On the contrary, they are, if anything, better than the generality.

The most astonishing circumstance of all in the history of this matter, is the perfect ease with which the public are gulled. Of course every body thinks himself the most difficult to cheat of any body, till his turn comes, and then he is perfectly astonished at the innocence which he has displayed. No matter how broad the lie may be, or how glaring soever the improbability which may appear on the face of an announcement, it deludes numbers. Indeed the higher the flight which the advertiser's imagination may take in the regions of fiction, the surer is he of receiving large numbers of applicants for his wares. That this is the case is beyond a doubt; it is more thoroughly proved every day. Hence it is that the five and ten shillings gentlemen succeed in drawing into their net so many dupes. Again, on the other hand, it may well be asked,—why do you support an individual who makes professions such as these, for it is but a poor compliment to pay any person, if his practice depends upon the ingenious skill of an advertisement, whoever he may be, respectable or otherwise, or he who seeks patronage by charges contrary to common honesty? He is the very person to make a dupe of you, and impose upon you some worthless trash. "Why?" Because he has no character to support, no connection to establish. He is here to-day

and gone to-morrow; he will make something for you in the shape of teeth, but what guarantee have you that the materials are such as not to endanger your health? You have none whatever. And again, supposing they may require after-adjustment, he is not here to do it; and then you discover that the expense will be greater than it would have been, if you had first applied to a respectable and established Dentist. In that case you would have gone, in all probability, to an individual who has a character to support, and whose very existence depends upon the manner in which he does his work, and the recommendations he thus secures. It is true there is considerable difference in the skill of Dentists. One may be perhaps a clever mechanist in the art and yet be incompetent to fit the teeth; he may insert teeth, and you may wear them, but the question is, are they useful to you in mastication? are they so fitted as to guarantee perfect symmetry of form and expression of the features, and a perfect equalization of pressure? These are considerations important in themselves, and most essential, not only to the future comfort and convenience of the wearer, but in the fact that a saving may be effected in their use, by their being substantially made in their several parts, by a clever mechanist, and well adjusted by a practical man. And this unity can be purchased by those who value perfect success in the use of artificial teeth, and who seek not economy in low tariff, or place implicit reliance in strangers and their recommendations of advertisements. Thus the fact remains that the only true way to obtain the real benefits of the art is to consult a respectable practitioner; if you do not this, as I have before said, you in all probability place yourself in the hands of a person who is not only thoroughly ignorant of all the principles of Dentistry, but whose sole aim is to cheat and rob, by almost any means, the victims who may fall into his trap.

I have spoken of the easy way in which the public are gulled, and whilst speaking of this subject I cannot

refrain from mentioning a couple of instances, which though they may be laughed at as incredible, are still *facts*. In a small town famed for its horse fair, not five hundred miles from Howden, there lived a respectable tradesman, who chanced to be minus a front tooth. Now this in some way annoyed him, and he resolved that the vacancy should be supplied on the first eligible opportunity. This opportunity was not long in coming, for one of the tribe of Israel, in the course of his perambulations, visited the town alluded to. Now was the time or never. The obliging Hebrew would not even trouble our friend to leave his own house, but with great kindness waited upon him there. Down sits our toothless friend in a chair, and over him stands the operator. Forth from the latter's waistcoat fob comes something very much like a piece of bone, and into the vacancy in the front rank it is placed. "Now sir," quoth the *dentist*, "you must sit in that chair perfectly quiet for two hours, and at the expiration of that time the *tooth* I have inserted will become quite fast in its place!" The money was paid, and out went Shylock. Quietly and patiently did our friend abide in the chair. Patiently I said, but hardly that, for his eye was on the clock, and in his mind the length of every minute seemed tenfold what, under other circumstances, he ever knew it. At length the time arrived. He had sat his tooth fast at last, so he thought. Happy moment! up he jumped and down went the—piece of bone, for that it was,—in all its nakedness on the floor. This was too much for human nature. He had performed the feat of sitting two long hours motionless, and that, too, without in any great degree destroying his mental equilibrium. But now! what could he do? Forth sallied he in search of the man of—bone, but meeting some of his friends he let slip the fatal truth, and then gushed upon him such a flood of banter and ridicule that rather than bide "the pelting of the pitiless storm," he took shelter in his own domicile, and saw no

more of the Jewish practitioner. Long after was it a matter of gossip with his neighbours, and loud were the exclamations of wonder and surprise, that he should have have been bit in such a way. Gross as this may seem, it is still a secondary imposition to one which came to my knowledge as having occurred in a small agricultural town some sixteen or seventeen miles out upon the Bridlington railway, from Hull. The story was first told me by a gentleman of the legal profession, resident in Hull. I have heard of it also in the town itself, and the fact was acknowledged in my hearing by one of the parties actually engaged in the imposition. Two individuals of the Israelitish race, one of whom had practised in Hull, as a "Chiropodist," vulgarly called "Corn Doctor," and the other had visited that town in the capacity of "Surgeon Dentist," but had been obliged to "make himself scarce," through fear of those limbs of the law, commonly known as "bums," entered into partnership. The one did the business of the corns on the feet, and the other did the business of the teeth in the head,—both *did* the public. Amongst other places to which their circulars extended, was the agricultural town of which I have before spoken; and one of them chanced to fall into the hands of the wife of a respectable tradesman there. This good dame, be it known to my reader, had a vacancy in her mouth, which, in her "sunny days of childhood," had been filled by five admirable teeth, now, alas, no more. Moreover, this vacancy was in the front part of the mouth, and, as a matter of course, was a defect visible to every one. It will naturally be supposed that this was no balm to the lady's mind, but somewhat the other way. Indeed, it was a fruitful source of annoyance to her, and in her inmost mind, she had long determined to have this vacancy again filled. The circular stirred up anew these inward determinations, and piled so much fuel upon the fire that it blazed outright. One of the two gentlemen—I know not which—though I will charit-

ably suppose it to have been the "Dentist" waited upon her at her request, and received instructions to supply the want of teeth under which she laboured. I will not scrutinize too closely the manner and material in which, and of which, these new teeth were made. Suffice it, they were made and fitted upon what the operator denominated a silver plate. So rude, however, was the piece of mechanism produced, that when put into the lady's mouth she was as completely gagged, as she could possibly be,—the only time when this feeling did not exist being when the teeth threatened to fall out. Of course it was evident they could not be worn in this way. What was to be done? "Oh," quoth our friend, the dentist, "it is all right, all artificial teeth are in this way at first. You must lay upon your back the whole day, when you will find that the teeth will have not only become fast to the gums, but they will be exactly like your own, and you will be able to speak admirably." Will it be believed—can the most staunch believer in the gullibility of humanity swallow it, our fair friend actually extended her frame on the bed, and remained in a quiescent state for some hours. Yes! The lady was *still* in both ways, and remained so until her husband came home in the evening. He was somewhat surprised to find his better half in bed, especially as he had left her in the enjoyment of perfect health in the morning, and had not heard of her having been ill in the day. He asked her what was the matter, but alas, no answer could he get; she had not the power of utterance, and fearful lest some calamity should have befallen the "wife of his bosom," he rushed into another apartment, and inquired of his daughter what on earth was the matter with her mother? The answer was prompt. "Oh you must not speak to mother; she has had some new teeth inserted by a gentleman with moustachios, lodging at Mr. J—'s the jeweller, and she is now lying on her back till they grow fast." An indignant exclamation burst from the husband, and

as the passion rose "furious and fast" he hastily visited Mr. —'s for the purpose of having a little conversation with the gentleman in moustachios, but fortunately for himself, that individual had departed, and was not to be found. Need I add, that the whole affair was one of the grossest swindles ever perpetrated. The teeth neither fitted, nor were they ever meant to fit. On the contrary, their workmanship was of the rudest kind, and the great wonder is, how the lady could have allowed them to be put into her mouth. This wonder, however, ceases, when we consider the fact, that she was laid on her back for some hours afterwards to allow them to grow fast to her gums.

Such, then, is a mere outline of the present state of Dentistry, and, though it may probably appear in the eyes of some, to savour of caricature and exaggeration, yet I can assure them, that it is a plain statement of facts, illustrated without the slightest ill-feeling or prejudice against any particular person. No one, I think, can have perused it, imperfect though it be, without being satisfied that the present position of the Dental profession is very unsatisfactory. Intimately allied with the science of medicine and surgery, it is altogether neglected by the powers that be. It is open to the attacks of the vilest impostors, who are not discernable from the truly scientific professional man. It is hardly a profession, for it is practised by the most unlearned and ignorant persons. How is it possible that a man absolutely unacquainted with the mechanical department, who can scarcely twist a clasp without breaking it,—how is it possible I say, that he can be fit to practice as a Dentist? and yet, how many are there, both Jews and Gentiles, who are in this position. Let it not be understood that, in writing this, I would condemn those persons who, by their own intelligence

and perseverance in inquiry, have made themselves thoroughly aequainted with the praetiee and seienee of Dentistry. Far be it from me to do any thing of the kind. All honour, say I, to the man whose tastes and intelligence have enabled him to raise himself from, it may be, a lowly eondition to commenee in the profession. He is worthy of all praise. But it is not sueh as he of whom I am speaking. I allude to those individuals who without the slightest pretension to talent, or knowledge of the art, praetice it for the sole object of extorting money. As a Jew "Chiropodist" who, by the by, had just assumed the title of Surgeon Dentist, once remarked in my hearing, "you Englishmen can work very well, but you eannot make money like the Jew." "No" retorted I, "neither should I wish to so cover with infamy the name of Englishman, as it is the praetice of you and your compeers to do." The faet is, Dentistry has been most grossly negleeted by the members of the profession themselves. They have seareely endeavoured at all to plaee the art on its proper footing; they have allowed the public to be imposed upon, without doing aught to prevent it. They have heard the people ery "We want a guarantee for the honesty and skill of the Dentist; we have no means of knowing the skilled from the unskilled. You all live in respeetable plaees, and offer seemingly the best guarantees for your integrity and respeetability. And yet we are most shamefully vietimized; we dare not venture to endeavour to obtain relief, beeause we are met on all hands with imposition and double dealing." This has been the ery of the people, and what has been the response? Almost nothing. True, a few pamphlets have been issued on Dentistry by leading members of the profession, but they have done little more than refer to the subjeet. Mr. Robinson, in his "address to the Dental College at Baltimore," has perhaps dwelt the most partieularly on the state of Dentistry, but neither he, nor any one else, has

entered fairly into the spirit of the matter, and endeavoured by the publication, in an easily attainable form, of a work calculated to infuse new blood into the members of the profession, and arouse them from their lethargy, to put the profession on its proper and legitimate footing. Little or nothing has been done to hold up those who would run riot in the profession, and to provide the public with the means of distinguishing the respectable from the disrespectable practitioner. Is it not high time that something were done for the protection of the public, and the benefit of the profession? Why should not the dental profession be put upon the same basis as its brother, surgery? There a man is required to make certain gradations, and any one practising the science of medicine without having made such gradations, is liable to the punishment of the law. Why should it not be the same in the dental profession? Is the science not sufficiently important to warrant the formation of a College for its teaching and thorough cleansing? Most assuredly it is; and there is only one thing which is required to bring about a "consummation so devoutly to be wished," and that is the moving in the matter of those most eminent in the profession. Mr. Robinson, in his address to the Baltimore College of Dental Science, well says:—"I will spare no exertions, I shall hesitate at no sacrifices that may aid in rescuing it (the dental art) from the odium which attaches to it in England, and placing it in the high and honourable position which it occupies in the United States. I feel satisfied that until the barriers of professional jealousy and private interest are broken through—until a kindly and more liberal feeling is established among the leading members of the profession—until unanimity of purpose and honesty of intention prevail,—UNTIL A COLLEGE OF DENTAL SCIENCE IS ESTABLISHED, and competent examiners appointed to test the qualifications of all aspirants, and ascertain that their claims

to practice as Dentists are founded upon a sound and solid basis, Dental Surgery can never hold its proper position in England, or assume its legitimate place, beside its parent science, medicine." Here is the gauntlet thrown down in language at once forcible, dignified, intelligible, plain, and to the purpose. It remains to be seen whether it will yet be taken up by those members of the profession who lack neither means nor ability to carry out the suggestion. I am persuaded that amongst the gentlemen whose names are mentioned in the course of these pages, are several fully qualified to set the machinery in motion, and if they will but do this, they may rest satisfied, that not only will they have the assistance of all the respectable members of the profession, but they will receive the heartfelt thanks of their compeers, and of the public at large.

The effect of such a College as the one I would now advocate, would be to secure to the public in a great measure fair dealing, which is alone the true secret of success in a professional career. At the same time it would retard the progress of no one. If it would, then would I cease to advocate it. It is not to procure the emoluments which may be derivable from the profession, for the benefit of the few, that I seek to have a professional filter so to speak, established; but it is to abolish the trade of the impostor and swindler, and to do away with the extortion of quackery in any guise. There are individuals whose tastes and talents may have led them to obtain for themselves a thorough knowledge of some, even of the most learned professions,—even though they have been in a very low scale in society. And so in Dentistry. If a man does but make himself thoroughly conversant with all the principles and practice of the art, then he is our equal. It is so in all professions, and how many are there in the present day, who have shaken off the trammels of mediocrity, and fought their way, step by step, through

the most difficult and adverse circumstances, to the highest pinnacle of honour,—men who have shone in the brilliancy of their intellectual greatness, and have written their thoughts in language that will make them admired and beloved by future generations. Most of our greatest orators and statesmen, who have done much for the happiness and prosperity of their country, and their fellow-men, have thus risen. No College would exclude men such as these from the practice of Dentistry. The force of their genius, the transcendent glory of their talent will ever secure for them a place amongst the greatest and most worthy of the profession; and they will rise far above those, who, while endowed with worldly means, lack the glorious attribute of mind. No! The men whom a College would keep back, are the swindlers, the impostors, the cast-offs of society, who, under specious pretences, now gnaw the very vitals of a credulous public.

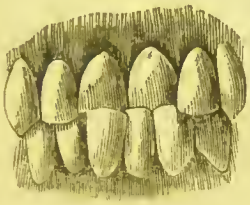
I take my stand on legitimate grounds of complaint. I do not seek to injure those who have themselves acquired thorough knowledge of the art, and who practice it fairly. My shaft is aimed against those who, without the least practical knowledge, yet assume the title of Surgeon Dentist, and practice as such. A man may throw upon him the gown of a Divine, but will it make him a Priest? he may clothe himself in the robes of a statesman, but will it qualify him for that dignified and responsible position? he may announce to the world, that he is a man of letters, and arrogate to himself unjust titles, yet he may be an ignorant booby; he may assume the name of the most distinguished of the faculty, or call himself Physician, Surgeon, or Dentist, and yet be thoroughly unacquainted with their first principles. But if he proceed to practice them, and extols himself as the *beau ideal* of that which he assumes, then I say that man is a quack, and a base impostor.

THE END.

APPENDIX.

THE FOLLOWING ENGRAVINGS ILLUSTRATE CASES REFERRED TO IN PREVIOUS PAGES OF THIS WORK.

Fig. 1.



Front view of an irregular set, showing the opposite teeth shutting over the irregular ones. *See page* 54.

Fig. 2.



Fig. 3.



Two teeth on which, through neglect, tartar has been allowed in different degrees to deposit. *See page* 30.

Fig. 4.



Six upper front teeth of a child about seven years of age, showing the absorption of the roots. *a*, *a*, The central incisors or front teeth with the roots absorbed, which when in the head at this age are quite loose; *b*, *b*, the lateral incisors which remain in the head some time longer than the centrals; *c*, *c*, the cuspidati or canine teeth, with the roots nearly perfect, these teeth being usually in the head until about the tenth year. *See page* 53.

Fig. 5.



Front view of a pivotted tooth.—*See page* 26.

Fig. 6.



a

Fig. 7.



b

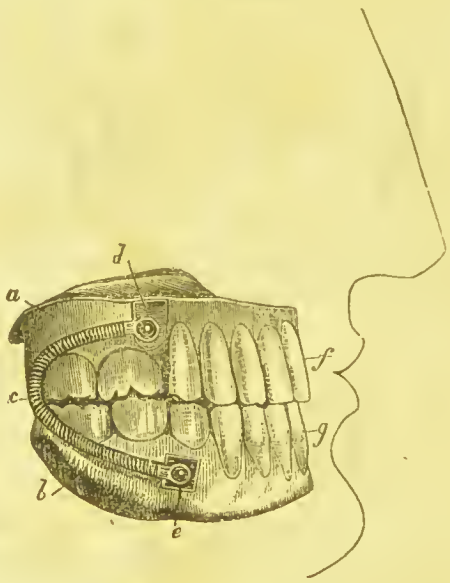
Fig. 8.



c

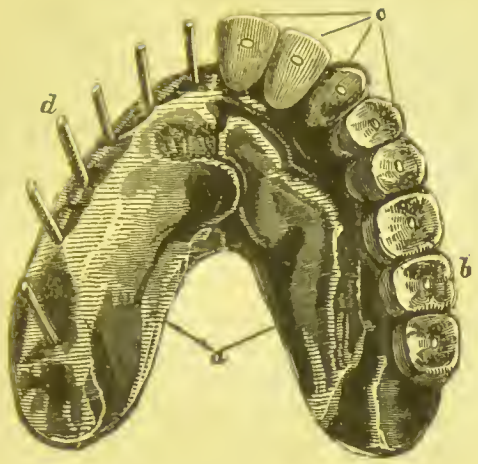
Artificial teeth constructed on three different principles. *a*, A tooth attached by wires twisted round the adjoining teeth ; *b*, two teeth where the wires act as springs, and being forced over the broad part of the adjoining teeth, grasp them tightly at the edge of the gum ; *c*, two teeth without wires or clasps, that, from their perfect adaptation, are firm in the mouth, without anything whatever being observable in the front of the teeth.

Fig. 9.



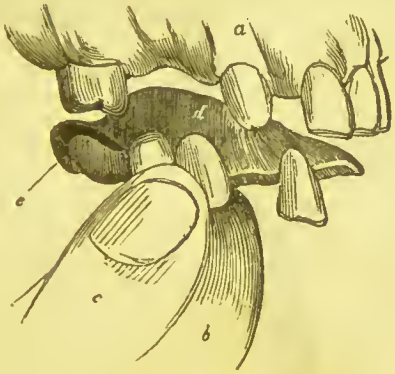
A complete set of artificial teeth shown in the position they occupy in the mouth ; *a* and *b* the sideblocks of the upper and lower teeth : *c* the spring in its proper position when the mouth is closed ; *d* and *e* the pins by which the spring is attached to the upper and lower teeth ; *f* and *g* the front teeth.

Fig. 10.



Artificial teeth for an edentulous upper jaw, showing, *a* the base of gold; *b* the molar teeth; *c* the front teeth; *d* the right side of the base, with pins soldered for fixing the teeth.

Fig. 11.



a The gums, *d* the base of the teeth, *e* the band, *c* the fore-finger, and *b* the thumb.

Fig. 12.



A peculiar structure or malformation of a lower molar decayed tooth having five fangs, extracted with the forceps by Mr. F. Cornwall, of Beverley, now in my possession.

Caution to Nurses.—An inquest was held a few days since, in London, on the body of an infant, Harriet Gardiner, aged nine weeks. It appeared from the evidence of a nurse, named Petit, that deceased was brought up by hand, and that she gradually sank until the period of her death. Mr. Archer, surgeon, said that when born deceased was a fine healthly child, but at its death was extremely emaciated, and ultimately died from the want of proper food and nourishment. If it had had the breast it would have lived. He was sorry to say that, out of every three children brought up by the hand, two died from this treatment, and if they lived they were delicate miserable-looking children. Verdict, "Deceased died from the want of proper food and nourishment, and the jury further feel it their duty to call upon the press to give publicity to the inquiry, as it will be a warning to mothers and nurses to be cautious in the mode in which children are brought up."—*From the Hull Packet, Friday, Oct 10th*, 1851.—*See page* 51, "On Food for Children."

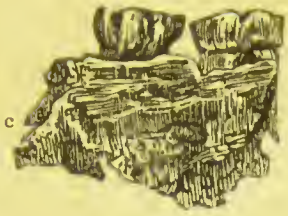


THE KEY INSTRUMENT.

See page 41, "On the Extraction of Teeth."

Fig. 13. *Fig.* 14.





(EFFECTS OF QUACKERY.)

The above Engravings I have formerly adverted to in page 38. The development of a biscuspide tooth of the second dentition; marked *a* is shown; *b* and *c* represent the alveolar process or jaw bone, containing molar teeth.

It is surprising that medical and dental empirics, in the plenitude of their ingenuity in devising schemes to gull the public, should never have started with some pretended preventitive against disease of any and every kind. Why they should put limits to their skill, and thus deprive their fellow creatures of the fulness of their knowledge I am at a loss to imagine. Why do they not at once announce a discovery that will exempt poor suffering humanity from the invasion of all diseases that flesh is heir to? It is a complete burlesque to say that they can only cure certain diseases, when they, as a class, can or profess to command such untried resources. It surely cannot emanate from modesty or false delicacy. Might not my brother dentists, those of course of extraordinary talent, I mean, who contribute so much to the advancement of the art by their discoveries and inventions, might not, I say some of their number boldly and unblushingly affirm that he has discovered a certain Elixir, or rather a Seed Powder, to make new teeth grow up like mushrooms. I merely throw out the hint, and, I trust, it will be of service during their researches. But they must guarantee to make them spring up without pain—that must not be omitted and such stipulations would ensure its immediate success amongst credulous thousands. The house of the empiric, if he professed to practise, would be thronged with patients eager to swallow his nostrums, or apply his seed powder. But, however, I must pass over this part of my subject, and assert my protest and say, that it is most discreditable to the government and legislature of this country, in all its boast of civilization, to allow its subjects to be so shamefully plundered and genteelly assassinated, and that to such a frightful extent, without an effort on the part of the medical profession. They ought to take decided steps with the view of putting down the intolerable nuisance. If fairly brought before parliament there cannot be a doubt that some decisive measures would at once be had recourse to, for the purpose of strangling the many-headed monster of medical empiricism.

It is much to be desired, that some authentic information were accessible respecting the number of deaths which annually result from the effects of quackery, in its various stages in Great Britain. An annual registry of cases that have died under such influence, and made known to the Legislators, would of itself speak volumes for the important neeessity for alterations of the laws affecting quacks, and quack medieines. That a vast amount of mortality is attributable to the agency of those persons, is unfortunately a too well attested fact. That more than Two Hundred Thousand persons are yearly the victims of quaekery, is no exaggerated supposition. The Yearly revenue that Government derives for Stamps upon Patent Medicines alone, amounts to between £50,000 and £60,000, setting aside the large quantity of those poisons sold unstamped.

Dr. Thornton made a calculation some years ago, that several thousand children were annually killed by a quack medicine advertised as "Cakes for the cure of worms." What then, must be the total number sacrificed at the present time, by the various nostrums advertised for all diseases for which children and adults are subject to; I should like to know? I have it from unquestionable authority, that in London alone upwards of £200,000 are annually expended on quack doctors and quack medicines, and very many of these persons are driving a most luerative business in human flesh. It really is most scandalous that such a thing should be permitted, when there are thousands of educated and duly qualified gentlemen, who are thrown entirely into the shade, and obliged to pine and weep at their unfortunate struggle, after spending a fortune and years of study in a profession, which is no more protected in reality than the unsuspeeting publie themselves.

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ERRATA.

Page 20, last line, *for* "the names of Fonzi, Pernet, Desforges," *read* "the names of M. Fonzi, Pernet Desforges."

Page 21, line 20, *for* "Lemal," *read* "Lemale," and on the same page at the conclusion of the paragraph ending "profession," *add* "Saunders, dentist to the Queen," being the authority quoted.

Page 23, line 25, *for* "porcelain," *read* "palladium."

Page 38, line 31 and 32, *for* "the result of an overdose of mercury," *read* "the result of repeated overdoses of mercury."

Page 60, line 22, *for* "expense of their dupes. There is another class" *read* "expense of their dupes; but there is another class."

Page 63, line 38, *for* "and indeed is sometimes now, for the loss of the grinders," *read* "and indeed is sometimes now substituted for the loss of the grinders."

Page 64, line 40, *for* "have been produced,—like Peter Pinders razors," *read* "have been produced and found like Peter Pinder's, &c."